The Duke Department of Dermatology presents the 2011 Society for Investigative Dermatology Annual Meeting.

May 4 – 7, 2011
JW Marriott Desert Ridge Resort and Spa
Phoenix, Arizona

Meeting Program

Society for Investigative Dermatology

The Duke Department of Dermatology presents the 2011 Society for Investigative Dermatology Annual Meeting.

Jointly sponsored by Duke School of Medicine and Society for Investigative Dermatology
Mission
To advance and promote the sciences relevant to skin health and disease through education, advocacy and scholarly exchange of scientific information.

Vision
The SID will be the pre-eminent organization for the science of skin health and diseases. It will be a leading purveyor of educational programming. It will promote a culture of discovery and serve as the premier forum for the exchange of scientific information relating to dermatologic research. It will build cross-disciplinary bridges to provide catalytic leadership in attaining intellectual, political, and financial support for skin-related scientific investigation. The SID will be—and be viewed as—a significant force in shaping public policy. As a result of recruiting, nurturing, and mentoring the next generation of scientists, it will be a financially robust and self-sustaining organization.

Core Values
• Integrity
• Collegiality
• Shared beliefs
• Innovation
• Leadership

2011 Annual Meeting Exhibitors
BCCNS Life Support Network
CellnTec
Cicatricial Alopecia Research Foundation
Coalition of Skin Diseases
Elsevier, Inc.
F.I.R.S.T.
LUCID, Inc.
National Alopecia Areata Foundation
National Eczema Association
National Foundation for Ectodermal Dysplasias
Pachyonychia Congenita Project
The Sturge-Weber Foundation
TissueGnostics GMBH
Zen-Bio, Inc.

Future Annual Meetings
May 9 – 12, 2012
Raleigh Convention Center
Raleigh, North Carolina

May 8 - 11, 2013
International Investigative Dermatology
Edinburgh, Scotland

May 7 -10, 2014
Albuquerque Convention Center
Albuquerque, New Mexico

Officers
Kathleen Green, PhD
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Victoria Werth, MD
Vice President
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Vice President-elect
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Russell P. Hall, MD
Assistant Secretary-Treasurer
Paul Bergstresser, MD
JID Editor
Lowell Goldsmith, MD/MPH
SID Senior Medical & Scientific Advisor

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Richard Eckert, PhD
Richard Gallo, MD/PhD
Jodi Johnson, PhD
Alexa Kimball, MD/MPH
Andrew Kowalczyk, PhD
Brian Nickoloff, MD
Joyce Rico, MD
David Rubenstein, MD/PhD
Mark Udey, MD/PhD
Welcome to the 71st SID Annual Meeting

On behalf of the Society for Investigative Dermatology (SID), we welcome you to the 71st Annual Meeting. The name of our host city, Phoenix, was officially recognized on May 4, 1868. It conjures up images of renewal and rebirth, apropos to the cycles of discovery that mark the path of innovation. This year in the ‘Sun City’, we come together—an international community of investigators—to reinforce and extend the frontiers of scientific knowledge about skin health and disease.

The scientific program has been developed to inform and engage members from multiple specialties and disciplines in order to establish and enhance venues for dissemination and exchange of scientific information. We thank the 2010-2011 Committee on Scientific Programs for their dedication in developing this program.

Co-Chairs
James T. Elder, MD/PhD
Michael Girardi, MD

Committee Members
Jack Arbiser, MD/PhD
Anthony Gaspari, MD
My Mahoney, PhD
Anthony Oro, MD/PhD

Mitchell Denning, PhD
Tom Hornyak, MD/PhD
David Margolis, MD/PhD
Julie Segre, PhD

Our Society strives to offer programming that reaches all members of the dermatology and cutaneous biology research communities. A founding value of the Society in 1937 was to pave the career path for young investigators, and provide a dynamic forum in which a diverse group of scientists can interact. We remain committed to this day.

In concert with the 2011 “Year of the Mentor” theme designated by our Journal Editor, Paul Bergstresser, we have scheduled a variety of activities for exploration of a career in research, and many networking opportunities. We ask all meeting attendees to participate in the SID Mentor Network Survey—more information will be available during the meeting.

Plans are underway for events to celebrate our rich history. Join us for the SID’s 75th Anniversary Celebration at next year’s annual meeting, May 9-12 in Raleigh, North Carolina.

Welcome to Phoenix. We encourage you to return your meeting evaluation forms so we can incorporate your feedback into the development of future educational offerings.

Kathleen J. Green, PhD
President

Robert Swerlick, MD
Secretary-Treasurer

Russell Hall, MD
Dep. Secretary-Treasurer
The Coalition of Skin Diseases salutes

**Paul Bergstresser, MD**

Editor, *Journal of Investigative Dermatology*

for his designation of 2010 as “Year of the Patient”

and his ongoing commitment to individuals affected by skin disease.

*In all that he does, he leads with his heart and compassion for others.*

www.coalitionofskindiseases.org
Reproduction and Photography Policy
Any photography, filming, taping, recording or reproduction in any medium of any of the programs, exhibits, or lectures (oral or posters) presented at the 2011 SID Annual Meeting is strictly forbidden. **Failure to comply with this rule may lead to the removal of your Meeting credentials.**

On-site Registration
On-site registration will take place at the SID Registration Counter (Grand Canyon Foyer 6) at the JW Marriott Desert Ridge during the following hours:

- **Wednesday, May 4, 2011** • 8:00 am - 8:00 pm
- **Thursday, May 5, 2011** • 7:30 am - 4:00 pm
- **Friday, May 6, 2011** • 7:30 am - 4:00 pm
- **Saturday, May 7, 2011** • 7:30 am - 12:00 pm

Badges
Badges are issued at the SID Registration Counter (Grand Canyon Foyer 6). Meeting attendees are required to wear their badges at all times for admission to all sessions and other Meeting activities.

Special Services for the Physically Challenged
This year’s facilities are fully accessible to the physically challenged. If you have any special needs, please stop at the Registration Counter upon arrival or call the SID office at 216-579-9300.

Placement Services
The SID is pleased to offer a placement service to its members. A placement/job postings page is available to members on the SID website at www.sidnet.org. In addition, prospective employers and candidates may conduct interviews or post additional announcements at the Meeting. A board will be available in the registration area.

Technical Exhibits
Exhibits will be on display during the following times in the Grand Saguaro Ballroom of the JW Marriott Desert Ridge:

- **Thursday, May 5, 2011** • 10:00 am - 12:00 pm
- **Friday, May 6, 2011** • 11:15 am - 1:15 pm
- **Saturday, May 7, 2011** • 10:00 am - 12:00 pm

The SID welcomes representatives from the following companies.

- BCCNS Life Support Network
- CellnTec
- Cicatricial Alopecia Research Foundation
- Coalition of Skin Diseases
- Elsevier, Inc.
- F.I.R.S.T.
- LUCID, Inc.
- Medicis
- National Alopecia Areata Foundation
- National Eczema Association
- National Foundation for Ectodermal Dysplasias
- Pachyonychia Congenita Project
- The Sturge-Weber Foundation
- TissueGnostics GMBH
- Zen-Bio, Inc.
CME Statement & Objectives

The Duke Department of Dermatology presents the 2011 Society for Investigative Dermatology Annual Meeting. Jointly sponsored by:

The CME Mission of the Society for Investigative Dermatology (SID) is to advance and promote scientific evidence relevant to skin health and disease through education and scholarly exchange of scientific information, with the intent to foster improvement in the competence (abilities, skills and strategies) of dermatology researchers and clinicians.

Commercial Support Statement
This CME activity is supported by educational grants from Abbott Laboratories, Medicis, and Merz Pharmaceuticals, LLC.

Purpose
The educational programming of the SID is designed to develop, maintain, and/or increase the abilities, skills, and professional performance of its target audiences. SID CME activities will:

1) Disseminate updated evidence-based knowledge of skin biology/disease and applications for maintaining health and preventing, diagnosing, and treating disease in a manner that fosters scientific excellence, elevates the standard of care, and meets high ethical standards.
2) Provide target audiences with a relevant forum for the exchange of cutting-edge scientific ideas, information, and methodology.
3) Advance the science involved in basic skin biology and clinical care of patients with skin disease.
4) Provide exposure to novel science (both concepts and methods) which may be relevant in the future to understanding and treatment skin disease.

Target Audiences
The primary target audiences for SID CME activities include all of the sectors of the dermatology community, consisting of research investigators, clinicians, research and clinical trainees, members of industry, and community advocates for skin health/disease.

Expected Results
Activities are primarily designed to improve competence, defined as the skills, abilities and strategies a physician would put into practice in the evaluation, diagnosis and management of patients with skin diseases. These activities will bring clinicians to the cutting edge of new diagnostic techniques, provide increased understanding of the pathogenesis of disease and in the long term improve patient outcome using evidence based data. For researchers, education is designed to improve research skills, abilities and strategies.

Results of SID education are expected to include a change in knowledge and competence as measured by post meeting evaluations, an ability to describe how new knowledge may be applied to research; a reported intent to apply new knowledge by making changes in research strategies; and a description of how new knowledge has been applied.

Faculty Listing
Activity Medical Director:
Russell P. Hall, III, MD
Chairman, Department of Dermatology
Duke University Medical Center

Activity Co-Director:
Robert Swerlick, MD
Associate Professor and Chair
Emory University

Summary of Faculty Disclosure/Conflict Resolution
Staff and Content Validation Reviewer Disclosure
The staff involved with this activity and any content validation reviewers of this activity have reported no relevant financial relationships with commercial interests.

Resolution of Conflicts of Interest
In accordance with the ACCME Standards for Commercial Support of CME, the Duke University School of Medicine implemented mechanisms, prior to the planning and implementation of this CME activity, to identify and resolve conflicts of interest for all individuals in a position to control content of this CME activity.

Planning Committee/Faculty Disclosure
The following speakers and/or planning committee members have indicated they have no relationship(s) with industry to disclose relative to the content of this CME activity:
Scott Atwood, PhD
Akerke Balberggenova, MD
Carl Baker, MD PhD
Jamie Bernard, PhD
Ricardo Berrios, MD
Cedric Blanpain, MD PhD
Sara Brown, MBChB, MD
Erin Burns, MS
Rita Cabral, PhD
Anna Celli, PhD
Allien Chang, BA
Alexandra Charruyer, PharmD, PhD
M Chen, PhD
Jiang Chen, MD
Shu Shien Chin, BS
Teng-Leong Chew, PhD
John Cho, PhD
Angela Christiano, PhD
Andrea Christman, BA
Rachael Clark, MD PhD
Oscar Colegio, MD PhD
Edward Cowen, MD
Rutao Cui, MD
Brenda Curtis, MD
Mitra Dowlatshahi, BA
James Elder, MD PhD
Peter Elias, MD
Anna Engberg, BA
Jamison Feramisco, MD PhD
Hillary Frankel, AB, MD
Teresa Fu, BS
Takuya Furushashi, MD
Shuo Geng, PhD
Spiros Gettsios, PhD
Lisa Godsel, PhD
Douglas Grossman, MD
Robert Gruber, MD
Thomas Haarmann-Stemmann, Dr
eva Hadasschik, MD
Kevin Hammill, PhD
Cameron Harrison, MD
Karen Hastings, MD PhD
Matthew Hayden, MD
Claire Higgins, PhD
Robert Hoffman, PhD
Valerie Horsley, PhD
Michael Hughes, PhD
Botond Igavarto, PhD
Munenari Itoh, MD PhD
Ali Jabbari, MD PhD
Heidi Jacobe, MD MSCS
Ahmad Jalili, MD PhD
Jaroslav Janda, PhD
Andrew Johnston, PhD
Paul Jou, MS, BS, BA
Dan Kaplan, MD PhD
Ritika Khandpur, MD, MHA
Paul Khavari, MD PhD
Majia Kiuru, MD PhD
Kristina Kligya, PhD
I-Hsin Kuo, MS
Mazen Kurban, MD
Ute Laggner, MD PhD
Sarah Lamore, MS
Sinead Langan, MD, MRCP, MSc, PhD
Caitriona Ryan, MD, fulfills the role of Advisory Board Member for Janssen and Speaker for Amgen, Biogen & Abbott

David Rubenstein, MD, PhD, fulfills the role of Speaker for Amgen, Biogen & Abbott

Caitriona Ryan, MD, fulfills the role of Advisory Board Member for Janssen and Speaker for Amgen, Biogen & Abbott

Unapproved Use Disclosure

Duke School of Medicine requires CME faculty (speakers) to disclose to attendees when products or procedures being discussed are off-label, unlabeled, experimental, and/or investigational (not FDA approved); and any limitations on the information that is presented, such as data that are preliminary or that represent ongoing research, interim analyses, and/or unsupported opinion. This information is intended solely for continuing medical education and is not intended to promote off-label use of these medications. If you have questions, contact the medical affairs department of the manufacturer for the most recent prescribing information. Faculty will not be discussing information about pharmaceutical agents that is outside of U.S. Food and Drug Administration approved labeling.

Disclaimer

The information provided at this CME activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient’s medical condition.

The following speakers and/or planning committee members have indicated that they have relationship(s) with industry to disclose:

The Duke University School of Medicine designates this educational activity for a maximum of 36.00 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

Instructions on How to Receive Credit

In order to receive CME credit, participants must sign-in, review the CME information (accreditation, learning objectives, faculty disclosures, etc.) and attend the CME activity. Participants should also complete the activity evaluation form and return it to the Society for Investigative Dermatology via fax to 216.579.9333 or mail to:

Society for Investigative Dermatology
CME
526 Superior Avenue E, Suite 540
Cleveland, OH 44114

Accreditation

This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education through the joint sponsorship of the Duke University School of Medicine and the Society for Investigative Dermatology. The Duke University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation

The Duke University School of Medicine designates this educational activity for a maximum of 36.00 AMA PRA Category 1 Credit(s)™. Physicians should only claim credit commensurate with the extent of their participation in the activity.
# Meeting-at-a-Glance

## Wednesday, May 4, 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident Retreat for Future Academicians</td>
<td>7:30 am - 3:00 pm</td>
<td>Desert Suite III and V</td>
</tr>
<tr>
<td>National Psoriasis Foundation</td>
<td>8:00 am - 11:00 am</td>
<td>Desert Suite I</td>
</tr>
<tr>
<td>SID Board of Directors Meeting</td>
<td>8:00 am - 2:00 pm</td>
<td>Desert Suite I</td>
</tr>
<tr>
<td>Registration</td>
<td>8:00 am - 8:00 pm</td>
<td>Grand Canyon Foyer 6</td>
</tr>
<tr>
<td>International PC Consortium (PC Project)</td>
<td>9:00 am - 1:00 pm</td>
<td>Desert Suite VIII</td>
</tr>
<tr>
<td>Translational Research Symposium</td>
<td>12:00 pm - 3:00 pm</td>
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</tr>
<tr>
<td>Irvin H. Blank Forum</td>
<td>3:00 pm - 5:00 pm</td>
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</tr>
<tr>
<td>Albert M. Kligman/Phillip Frost Leadership Lecture</td>
<td>5:00 pm - 5:30 pm</td>
<td></td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 1</td>
<td>5:30 pm - 6:00 pm</td>
<td></td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture 2</td>
<td>6:00 pm - 6:30 pm</td>
<td></td>
</tr>
<tr>
<td>Welcome Reception</td>
<td>7:00 pm - 9:00 pm</td>
<td>Ballroom Lawn</td>
</tr>
</tbody>
</table>

## Thursday, May 5, 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society for Pediatric Dermatology</td>
<td>7:00 am - 8:00 am</td>
<td>Desert Suite I</td>
</tr>
<tr>
<td>Registration</td>
<td>7:30 am - 4:00 pm</td>
<td></td>
</tr>
<tr>
<td>Plenary Session I</td>
<td>8:00 am - 9:00 am</td>
<td></td>
</tr>
<tr>
<td>Eugene M. Farber Lecture</td>
<td>9:00 am - 9:30 am</td>
<td></td>
</tr>
<tr>
<td>Naomi M. Kanof Lecture</td>
<td>9:30 am - 10:00 am</td>
<td></td>
</tr>
<tr>
<td>American Skin Association Achievement Awards</td>
<td>10:00 am - 10:10 am</td>
<td></td>
</tr>
<tr>
<td>David Martin Carter Mentor Award</td>
<td>10:10 am - 10:15 am</td>
<td></td>
</tr>
<tr>
<td>Clinical Scholars Program</td>
<td>10:00 am - 11:30 am</td>
<td></td>
</tr>
<tr>
<td>Poster Session I/Technical Exhibits Open</td>
<td>10:00 am - 12:00 pm</td>
<td></td>
</tr>
<tr>
<td>BCCNS Life Support Network</td>
<td>10:00 am - 12:00 pm</td>
<td></td>
</tr>
<tr>
<td>Research in Cutaneous Surgery Symposium</td>
<td>10:00 am - 1:00 pm</td>
<td></td>
</tr>
<tr>
<td>Mentorship Luncheon</td>
<td>12:00 pm - 2:00 pm</td>
<td></td>
</tr>
<tr>
<td>Symposium I</td>
<td>12:00 pm - 2:00 pm</td>
<td></td>
</tr>
<tr>
<td>Young Investigator and Trainee Symposium</td>
<td>2:00 pm - 5:00 pm</td>
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<tr>
<td>Cutaneous T Cell Lymphoma Symposium</td>
<td>2:00 pm - 5:30 pm</td>
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<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
<td></td>
</tr>
<tr>
<td>Social Event</td>
<td>6:00 pm - 10:00 pm</td>
<td></td>
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</tbody>
</table>

* Indicates CME Credit Offered

See page 52 for additional information. Buses depart from the Ballroom Entrance beginning at 5:45 pm.

Corona Ranch
### Friday, May 6, 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>7:30 am - 4:00 pm</td>
<td>Grand Canyon Foyer 6</td>
</tr>
<tr>
<td>Business Meeting for Members</td>
<td>7:30 am - 8:15 am</td>
<td>Grand Canyon 6 - 7</td>
</tr>
<tr>
<td>Plenary Session II</td>
<td>8:15 am - 9:15 am</td>
<td>Grand Canyon 6 - 7</td>
</tr>
<tr>
<td>SIDES Program</td>
<td>9:00 am - 3:00 pm</td>
<td>Wildflower C</td>
</tr>
<tr>
<td>Stephen Rothman Award</td>
<td>9:15 am - 9:25 am</td>
<td>Presented to John R. Stanley, MD</td>
</tr>
<tr>
<td>Herman Beerman Lecture</td>
<td>9:25 am - 9:55 am</td>
<td>Super-resolution Imaging with Photoactivatable Fluorescent Proteins</td>
</tr>
<tr>
<td>Celebrating NIAMS 25th Anniversary</td>
<td>9:55 am - 10:10 am</td>
<td>Presented to John R. Stanley, MD</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture III</td>
<td>10:15 am - 10:45 am</td>
<td>Defining the Cell Lineages at the Origin of Skin Cancers</td>
</tr>
<tr>
<td>State-of-the-Art Plenary Lecture IV</td>
<td>10:45 am - 11:15 am</td>
<td>Intrinsic and Extrinsic Regulation of Skin Stem Cells</td>
</tr>
<tr>
<td>Poster Session II/Technical Exhibits Open</td>
<td>11:15 am - 1:15 pm</td>
<td>Even 002-280/Odd 563-845</td>
</tr>
<tr>
<td>Clinical Scholars Program</td>
<td>11:30 am - 1:30 pm</td>
<td>Grand Canyon 8</td>
</tr>
<tr>
<td>SID Technical Workshop</td>
<td>12:00 pm - 2:00 pm</td>
<td>Confocal Microscopy and Imaging Techniques</td>
</tr>
<tr>
<td>Women's Derm Society Luncheon &amp; Forum</td>
<td>12:00 pm - 2:00 pm</td>
<td>Desert Canyon 6 - 7</td>
</tr>
<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
<td>6. Immunology II: Innate Immunity and Microbiology Wildflower A</td>
</tr>
<tr>
<td>JID Editorial Board Meeting</td>
<td>4:00 pm - 6:00 pm</td>
<td>7. Tissue Regeneration, Stem Cells and Wound Healing Wildflower B</td>
</tr>
<tr>
<td>North American Hair Research Society Scientific Meeting</td>
<td>6:00 pm - 9:30 pm</td>
<td>8. Carcinogenesis &amp; Cancer Genetics Grand Canyon 11 - 12</td>
</tr>
<tr>
<td>Galderma Japan Scientific Forum</td>
<td>6:00 pm - 9:30 pm</td>
<td>9. Epidemiology/Health Services Research Grand Canyon 9 - 10</td>
</tr>
<tr>
<td>Trainee Dinner Session</td>
<td>7:30 pm - 9:30 pm</td>
<td>Grand Canyon 4 - 5</td>
</tr>
</tbody>
</table>

### Saturday, May 7, 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID Board of Directors Meeting</td>
<td>7:00 am - 8:00 am</td>
<td>Desert Suite I</td>
</tr>
<tr>
<td>Registration</td>
<td>7:30 am - 12:00 pm</td>
<td>Grand Canyon Foyer 6</td>
</tr>
<tr>
<td>American DermatoEpidemiology Network</td>
<td>8:00 am - 12:30 pm</td>
<td>Grand Sonoran A - B</td>
</tr>
<tr>
<td>Business/Scientific Session</td>
<td>8:00 am - 9:00 am</td>
<td>Grand Sonoran E - F</td>
</tr>
<tr>
<td>William Montagna Lecture</td>
<td>9:00 am - 9:30 am</td>
<td>Developing New Therapies for Epidermolysis Bullosa: The Hard graft John McGrath, MD Grand Sonoran E - F</td>
</tr>
<tr>
<td>Julius Stone Lecture</td>
<td>9:30 am - 10:00 am</td>
<td>The Interplay of IL-17- and IFN-g-producing CD4 T Cells in Immune-mediated Inflammation Casey Weaver, MD Grand Sonoran E - F</td>
</tr>
<tr>
<td>Clinical Scholars Program</td>
<td>10:00 am - 12:00 pm</td>
<td>Grand Sonoran G</td>
</tr>
<tr>
<td>Poster Session III/Technical Exhibits Open</td>
<td>10:00 am - 12:00 pm</td>
<td>Odd 283-565/Even 564-844</td>
</tr>
<tr>
<td>Phoenix Dermatologic Society/Arizona Dermatologic Society</td>
<td>2:30 pm - 5:30 pm</td>
<td>Grand Saguaro Ballroom</td>
</tr>
<tr>
<td>Concurrent Minisymposia</td>
<td>12:30 pm - 4:00 pm</td>
<td>10. Auto Immunity and Inflammation Grand Sonoran C-D</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11. Cell Adhesion/Matrix and Vascular Biology Wildflower Salon A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12. Human Clinical Research and Therapeutics Grand Sonoran G</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13. Photobiology Wildflower C</td>
</tr>
<tr>
<td>North American Hair Research Society Scientific Meeting</td>
<td>6:00 pm - 9:30 pm</td>
<td>Desert Suites III and V</td>
</tr>
<tr>
<td>Galderma Japan Scientific Forum</td>
<td>6:00 pm - 9:30 pm</td>
<td>Desert Suites IV and VI</td>
</tr>
<tr>
<td>Trainee Dinner Session</td>
<td>7:30 pm - 9:30 pm</td>
<td>Grand Canyon 4 - 5</td>
</tr>
</tbody>
</table>
E D U C A T I O N A L  T R A C K S

The SID is pleased to offer three educational program tracks within the 2011 Annual Meeting: Translational Research Track, Clinical Scholars Track and Young Investigator & Trainee Track.

The SID has been increasing the variety of sessions offered at the Annual Meeting that are geared toward residents, fellows, students and clinicians. The track system is an easy way for attendees to find and select the components of the Meeting that are best suited to their interests. The tracks include portions of the Meeting that are the most inter-related, providing attendees with a cohesive learning experience. By participating in a track, attendees will have the added benefit of attending sessions with their peers, providing significant opportunities for networking. You must be registered to attend educational track programming. Spaces are limited, and early registration is recommended. Registration will remain open until all spaces are filled.

The following pages outline the programming that is suggested to attendees participating in educational tracks. Track participants are encouraged to attend other portions of the Meeting as well.

Translational Research Track

- Designed for investigators who are considering or are actively involved in translating cutaneous biology research findings into clinical applications

This track combines clinically-oriented elements of the Meeting program with special lectures, including the Translational Research Symposium. This year’s symposium, “Clearing the Pipeline” includes the following:

- Is There a Place for the Academic Innovator?
- How Can the Licensing Office Maximize Your Innovation?
- Licensing Opportunities: What Is Industry Looking for in Terms of Creative and Marketable Ideas?
- How, Where and When Should the Trials Be Conducted?
- What Do You Need from the FDA and What Does the FDA Need from You?
- Panel Discussions

Clinical Scholars Track

- Designed for practicing dermatologists and educators who need overviews of current research topics and insight into the latest developments in skin disease and health research

The Clinical Scholars program focuses on providing the latest findings on cutting-edge research in a way that better reaches dermatologists not directly involved in bench research. This program combines clinically-oriented elements of the Meeting with special lectures on topics such as:

- B-RAF Inhibitors: Basic Science and Clinical Experience
- Psoriasis and the Risk of Systemic Disease: Implications for Clinical Practice
- Genomewide Association Studies in Dermatologic Diseases
- Mechanism-based Therapy Using Hedgehog Pathway Inhibitors

Young Investigator & Trainee Track

- Designed for early career dermatology investigators and residents to learn about the latest developments in skin research as well as to gain insight into career development in dermatological research

This track combines clinically-oriented elements of the Meeting with elements of the Clinical Scholars program and a special symposium for young investigators. This year’s symposium, “Developing an Academic Career” includes the following lecture topics:

- Mentoring & Finding a Niche
- Developing a Career in Clinical Research
- Finding Funding, Part 1: Foundations & Other Sources to Get Started—What’s Out There?
- Finding Funding, Part 2: NIH Funding Programs for Young Investigators
- Climbing the Academic Ladder
Wednesday, May 4, 2011

Irvin H. Blank Forum
Developments in Personalized Medicine for Skin Disease
Grand Canyon 6 - 7

Kligman/Frost Leadership Lecture
The Nature of the Mammalian Permeability Barrier
Peter Elias, MD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 1
How Skin-Resident Dendritic Cell subsets Control Immune Responses
Dan Kaplan, MD/PhD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 2
Towards Deciphering the Genetic Landscape of Melanoma
Yardena Samuels, PhD
Grand Canyon 6 - 7

Welcome Reception
7:00 pm - 9:00 pm
Ballroom Lawn

Thursday, May 5, 2011

Plenary Session I
8:00 am - 9:00 am
Grand Canyon 6 - 7

Naomi M. Kanof Lecture
9:30 am - 10:00 am
How p53 Works
Sir David Lane, PhD
Grand Canyon 6 - 7

Clinical Scholars Program
10:00 am - 11:30 am
Grand Canyon 8

Symposium I
12:00 pm - 2:00 pm
New Therapeutics for Autoimmune Diseases
Grand Canyon 8

Cutaneous T Cell Lymphoma Symposium
2:00 pm - 5:30 pm
Grand Canyon 6 - 7

Concurrent Minisymposia
2:00 pm - 5:30 pm
1. Pigmentation and Melanoma
   Wildflower Salon B
2. Hair and Cutaneous Development
   Wildflower Salon A
3. Epidermal Structure and Function
   Grand Canyon 4 - 5
4. Immunology I: Adaptive Immunity
   Grand Canyon 9 - 10
5. Genetic Disease, Gene Regulation & Gene Therapy
   Grand Canyon 11 - 12

Social Event
6:00 pm - 10:00 pm
TICKETED EVENT; PRE-REGISTRATION REQUIRED
See page 52 for additional information. Buses depart from the Ballroom Entrance beginning at 5:45 pm.
Corona Ranch

Friday, May 6, 2011

Plenary Session II
8:15 am - 9:15 am
Grand Canyon 6 - 7

Beerman Lecture
9:25 am - 9:55 am
Super-resolution Imaging with Photoactivatable Flourescent Proteins
Jennifer Lippincott-Schwartz, PhD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 3
10:15 am - 10:45 am
Defining the Cell Lineages at the Origin of Skin Cancers
EMBO Young Investigator Lecture
Cedric Blanpain, MD/PhD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 4
10:45 am - 11:15 am
Intrinsic and Extrinsinc Regulation of Skin Stem Cells
Valerie Horsley, PhD
Grand Canyon 6 - 7

Clinical Scholars Program
11:30 am - 1:30 pm
Grand Canyon 8

Concurrent Minisymposia
2:00 pm - 5:30 pm
6. Immunology II: Innate Immunity and Microbiology
   Wildflower A
7. Tissue Regeneration, Stem Cells and Wound Healing
   Wildflower B
8. Carcinogenesis & Cancer Genetics
   Grand Canyon 11 - 12
9. Epidemiology/Health Services Research
   Grand Canyon 9 - 10

Saturday, May 7, 2011

Plenary Session III
8:00 am - 9:00 am
Grand Sonoran E-F

William Montagna Lecture
9:00 am - 9:30 am
Developing New Therapies for Epidermolysis Bullosa: The Hard Graft
John McGrath, MD
Grand Sonoran E-F

Julius Stone Lecture
9:30 am - 10:00 am
The Interplay of IL-17- and IFNg-producing CD4 T Cells in Immune-mediated Inflammation
Casey Weaver, MD
Grand Sonoran E-F

Clinical Scholars Program
10:00 am - 12:00 pm
Grand Sonoran G

Concurrent Minisymposia
12:30 pm - 4:00 pm
10. Auto Immunity and Inflammation
   Grand Sonoran C-D
11. Cell Adhesion/Matrix and Vascular Biology
   Wildflower Salon A
12. Human Clinical Research and Therapeutics
   Grand Sonoran G
13. Photobiology
   Wildflower C
Wednesday, May 4, 2011

Translational Research Symposium  12:00 pm - 3:00 pm
Clearing the Pipeline
Grand Canyon 6 - 7

Irvin H. Blank Forum  3:00 pm - 5:00 pm
Developments in Personalized Medicine for Skin Disease
Grand Canyon 6 - 7

Albert M. Kligman/Phillip Frost Leadership Lecture  5:00 pm - 5:30 pm
The Nature of the Mammalian Permeability Barrier
Peter Elias, MD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 1  5:30 pm - 6:00 pm
How Skin-Resident Dendritic Cell Subsets Control Immune Responses
Dan Kaplan, MD/PhD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 2  6:00 pm - 6:30 pm
Towards Deciphering the Genetic Landscape of Melanoma
Yardena Samuels, PhD
Grand Canyon 6 - 7

Welcome Reception  7:00 pm - 9:00 pm
Ballroom Lawn

Thursday, May 5, 2011

Plenary Session I  8:00 am - 9:00 am
Grand Canyon 6 - 7

Farber Lecture  9:00 am - 9:30 am
Psoriasis: Narrowing the Immunologic Target
Kevin Cooper, MD
Grand Canyon 6 - 7

Naomi M. Kanof Lecture  9:30 am - 10:00 am
How p53 Works
Sir David Lane, PhD
Grand Canyon 6 - 7

Research in Cutaneous Surgery Symposium  10:00 am - 1:00 pm
Grand Canyon 11 - 12

Cutaneous T Cell Lymphoma Symposium  2:00 pm - 5:30 pm
Grand Canyon 6 - 7

Concurrent Minisymposia  2:00 pm - 5:30 pm
1. Pigmentation and Melanoma
   Wildflower Salon B
2. Hair and Cutaneous Development
   Wildflower Salon A
3. Epidermal Structure and Function
   Grand Canyon 4 - 5
4. Immunology I: Adaptive Immunity
   Grand Canyon 9 - 10
5. Genetic Disease, Gene Regulation & Gene Therapy
   Grand Canyon 11 - 12

Social Event  6:00 pm - 10:00 pm
TICKETED EVENT; PRE-REGISTRATION REQUIRED
See page 52 for additional information. Buses depart from the Ballroom Entrance beginning at 5:45 pm.
Corona Ranch

Friday, May 6, 2011

Plenary Session II  8:15 am - 9:15 am
Grand Canyon 6 - 7

Herman Beerman Lecture  9:25 am - 9:55 am
Super-resolution Imaging with Photoactivatable Flourescent Proteins
Jennifer Lippincott-Schwartz, PhD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 3  10:15 am - 10:45 am
Defining the Cell Lineages at the Origin of Skin Cancers
EMBO Young Investigator Lecture
Cedric Blanpain, MD/PhD
Grand Canyon 6 - 7

State-of-the-Art Plenary Lecture 4  10:45 am - 11:15 am
Intrinsic and Extrinsic Regulation of Skin Stem Cells
Valerie Horsley, PhD
Grand Canyon 6 - 7

Poster Session II/Technical Exhibits Open with Coffee Break  11:15 am - 1:15 pm
Even 002-280/Odd 563-845
Grand Saguaro Ballroom

SID Technical Workshop  12:00 pm - 2:00 pm
Confocal Microscopy and Imaging Techniques
Grand Canyon 6 - 7

Concurrent Minisymposia  2:00 pm - 5:30 pm
6. Immunology II: Innate Immunity and Microbiology
   Wildflower A
7. Tissue Regeneration, Stem Cells and Wound Healing
   Wildflower B
8. Carcinogenesis & Cancer Genetics
   Grand Canyon 11 - 12
9. Epidemiology/Health Services Research
   Grand Canyon 9 - 10

Saturday, May 7, 2011

Plenary Session III  8:00 am - 9:00 am
Grand Sonoran E - F

William Montagna Lecture  9:00 am - 9:30 am
Developing New Therapies for Epidermolysis Bullosa: The Hard Graft
John McGrath, MD
Grand Sonoran E - F

Julius Stone Lecture  9:30 am - 10:00 am
The Interplay of IL-17- and IFNg-producing CD4 T Cells in Immune-mediated Inflammation
Casey Weaver, MD
Grand Sonoran E - F

Poster Session III/Technical Exhibits Open with Coffee Break  10:00 am - 12:00 pm
Odd 283-565/Even 564-844
Grand Saguaro Ballroom

Concurrent Minisymposia  12:30 pm - 4:00 pm
10. Auto Immunity and Inflammation
    Grand Sonoran C - D
11. Cell Adhesion/Matrix and Vascular Biology
    Wildflower Salon A
12. Human Clinical Research and Therapeutics
    Grand Sonoran G
13. Photobiology
    Wildflower C
**Young Investigator & Trainee Track — Suggested Programming**

### Wednesday, May 4, 2011

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>Irvin H. Blank Forum</td>
<td>3:00 pm - 5:00 pm</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Developments in Personalized Medicine for Skin Disease</td>
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<tr>
<td>Albert M. Kligman/Phillip Frost Leadership Lecture</td>
<td>5:00 pm - 5:30 pm</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td>The Nature of the Mammalian Permeability Barrier</td>
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<tr>
<td>State-of-the-Art Plenary Lecture 1</td>
<td>5:30 pm - 6:00 pm</td>
<td>Grand Canyon 6 - 7</td>
</tr>
<tr>
<td>How Skin-Resident Dendritic Cell Subsets Control Immune Responses</td>
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<td>State-of-the-Art Plenary Lecture 2</td>
<td>6:00 pm - 6:30 pm</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Towards Deciphering the Genetic Landscape of Melanoma</td>
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<tr>
<td>Welcome Reception</td>
<td>7:00 pm - 9:00 pm</td>
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### Thursday, May 5, 2011

<table>
<thead>
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<tr>
<td>Plenary Session I</td>
<td>8:00 am - 9:00 am</td>
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<tr>
<td>Eugene M. Farber Lecture</td>
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<td>How p53 Works</td>
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<tr>
<td>Clinical Scholars Program</td>
<td>10:00 am - 11:30 am</td>
<td>Grand Canyon 8</td>
</tr>
<tr>
<td>Mentorship Luncheon</td>
<td>12:00 pm - 2:00 pm</td>
<td>Desert Suite III and V</td>
</tr>
<tr>
<td>Young Investigator and Trainee Symposium</td>
<td>2:00 pm - 5:00 pm</td>
<td>Grand Canyon 8</td>
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<tr>
<td>Developing an Academic Career</td>
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<tr>
<td>Social Event</td>
<td>6:00 pm - 10:00 pm</td>
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*See page 52 for additional information. Buses depart from the Ballroom Entrance beginning at 5:45 pm.*

### Friday, May 6, 2011

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<tr>
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<td>State-of-the-Art Plenary Lecture 4</td>
<td>10:45 am - 11:15 am</td>
<td>Grand Canyon 6 - 7</td>
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<td>Intrinsic and Extrinsic Regulation of Skin Cells</td>
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<td>Valerie Horsley, PhD</td>
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<td>Clinical Scholars Program</td>
<td>11:30 am - 1:30 pm</td>
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<tr>
<td>Concurrent Minisymposium</td>
<td>2:00 pm - 5:30 pm</td>
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<tr>
<td>6. Immunology II: Innate Immunity and Microbiology</td>
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<td>Wildflower B</td>
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<td>8. Carcinogenesis &amp; Cancer Genetics</td>
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<td>Grand Canyon 11 - 12</td>
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<td>9. Epidemiology/Health Services Research</td>
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<td>Grand Canyon 9 - 10</td>
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<tr>
<td>Trainee Dinner Session</td>
<td>7:30 pm - 9:30 pm</td>
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<td>Grand Canyon 4 - 5</td>
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### Saturday, May 7, 2011

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<tr>
<td>Plenary Session III</td>
<td>8:00 am - 9:00 am</td>
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<tr>
<td>William Montagna Lecture</td>
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<td>13. Photobiology</td>
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Level 1

JW MARRIOTT DESERT RIDGE MAPS
## Session Information

### 15 Pre-Meeting: Tuesday Session
- International Pachyonychia Congenita Consortium

### 17 Wednesday Sessions
- Meeting-at-a-Glance
- International Pachyonychia Congenita Consortium
- Translational Research Symposium
- Irvin H. Blank Forum
- Albert M. Kligman / Phillip Frost Leadership Lecture
- State-of-the-Art Plenary Lecture 1
- State-of-the-Art Plenary Lecture 2
- Welcome Reception

### 27 Thursday Sessions
- Meeting-at-a-Glance
- Society for Pediatric Dermatology
- Plenary Session I
- Eugene M. Farber Lecture
- Naomi M. Kanof Lecture
- American Skin Association Achievement Awards & David Martin Carter Mentor Award
- Clinical Scholars Program
- Research in Cutaneous Surgery Symposium
- Mentorship Luncheon
- Symposium 1: New Therapeutics for Autoimmune Diseases
- Young Investigator & Trainee Symposium
- Cutaneous T Cell Lymphoma Symposium
- Concurrent Minisymposium 1: Pigmentation & Melanoma
- Concurrent Minisymposium 2: Hair & Cutaneous Development
- Concurrent Minisymposium 3: Epidermal Structure & Function
- Concurrent Minisymposium 4: Immunology I: Adaptive Immunity
- Concurrent Minisymposium 5: Genetic Disease, Gene Regulation & Gene Therapy
- Social Event at Corona Ranch

### 55 Friday Sessions
- Meeting-at-a-Glance
- Business Meeting for Members
- Plenary Session II
- Stephen Rothman Award
- Herman Beerman Lecture
- Celebrating NIAMS 25th Anniversary
- State-of-the-Art Plenary Lecture 3
- State-of-the-Art Plenary Lecture 4
- Clinical Scholars Program
- SID Technical Workshop
- Concurrent Minisymposium 6: Immunology II: Innate Immunity & Microbiology
- Concurrent Minisymposium 7: Tissue Regeneration, Stem Cells & Wound Healing
- Concurrent Minisymposium 8: Carcinogenesis & Cancer Genetics
- Concurrent Minisymposium 9: Epidemiology / Health Services Research
- North American Hair Research Society Scientific Meeting
- Trainee Dinner Session

### 77 Saturday Sessions
- Meeting-at-a-Glance
- American DermatoEpidemiology Network Business/Scientific Session
- Plenary Session III
- William Montagna Lecture
- Julius Stone Lecture
- Clinical Scholars Program
- Concurrent Minisymposium 10: Auto-immunity & Inflammation
- Concurrent Minisymposium 11: Cell Adhesion / Matrix and Vascular Biology
- Concurrent Minisymposium 12: Human Clinical Research & Therapeutics
- Concurrent Minisymposium 13: Photobiology
ANCILLARY MEETINGS

TUESDAY, MAY 3, 2011

Resident Retreat for Future Academicians
6:00 pm - 9:00 pm
Desert Suite III and V

PRE-MEETING: TUESDAY SESSIONS

ANCILLARY MEETING: OPEN TO ALL MEETING ATTENDEES

Keynote Speaker
W.H. Irwin McLean, PhD, DSc
Colleges of Life Sciences & Medicine, University of Dundee, Dundee, United Kingdom

Section 1: Diagnostics and Genetics
Chair: C. David Hansen, MD, University of Utah

Gabrielle Richard, MD, FACMG
GeneDx, Gaithersburg, Maryland

Frances J.D. Smith, PhD
Colleges of Life Sciences & Medicine, University of Dundee, Dundee, United Kingdom

Keith Choate, MD/PhD
Yale University, New Haven, Connecticut

Jean Tang, MD/PhD and Katrina Spanhurst, MD
Stanford University, Palo Alto, California

Adam I. Rubin, MD
Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

Eli Sprecher, MD/PhD
Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

Hosted Lunch

Section 2: Research Studies
Chair: Leonard Milstone, MD, Yale University

Fernando Larcher, PhD
CIEMAT, Madrid, Spain

Jiang Chen, MD
University of Colorado at Denver, Aurora, Colorado

Kellie J. White, PhD
Emory University School of Medicine, Atlanta, Georgia

Jean Christopher Chamcheu, PhD
University of Wisconsin-Madison, Madison, Wisconsin

Amy S. Paller, MD
Northwestern University, Chicago, Illinois

Roger L. Kaspar, PhD
TransDerm, Inc., Santa Cruz, California

Hosted Dinner — 6:30 pm

For additional information, please contact:
Mary Schwartz, Director, PC Project
Tel: 877-628-7300 (toll free) / Fax: 877-628-7399
e-mail: Mary.Schwartz@pachyonychia.org
**Wednesday, May 4, 2011**

**Resident Retreat for Future Academicians**  
Desert Suite III and V  
7:30 am - 3:00 pm

**National Psoriasis Foundation**  
Chairman’s Boardroom  
8:00 am - 11:00 am

**SID Board of Directors Meeting**  
Desert Suite I  
8:00 am - 2:00 pm

**Registration**  
Grand Canyon Foyer 6  
8:00 am - 8:00 pm

**International PC Consortium (PC Project)**  
Desert Suite VIII  
9:00 am - 1:00 pm

**Translational Research Symposium**  
*Clearing the Pipeline*  
Grand Canyon 6 - 7  
12:00 pm - 3:00 pm

**Irvin H. Blank Forum**  
*Developments in Personalized Medicine for Skin Disease*  
Grand Canyon 6 - 7  
3:00 pm - 5:00 pm

**Albert M. Kligman/Phillip Frost Leadership Lecture**  
*The Nature of the Mammalian Permeability Barrier*  
Peter Elias, MD  
Grand Canyon 6 - 7  
5:00 pm - 5:30 pm

**State-of-the-Art Plenary Lecture 1**  
*How Skin-Resident Dendritic Cell Subsets Control Immune Responses*  
Dan Kaplan, MD/PhD  
Grand Canyon 6 - 7  
5:30 pm - 6:00 pm

**State-of-the-Art Plenary Lecture 2**  
*Towards Deciphering the Genetic Landscape of Melanoma*  
Yardena Samuels, PhD  
Grand Canyon 6 - 7  
6:00 pm - 6:30 pm

**Welcome Reception**  
Ballroom Lawn  
7:00 pm - 9:00 pm

*Indicates CME Credit Offered*
ANCILLARY MEETINGS

WEDNESDAY, MAY 4, 2011

Resident Retreat for Future Academicians
7:30 am - 3:00 pm
Desert Suite III and V

National Psoriasis Foundation
8:00 am - 11:00 am
Chairman’s Boardroom

SID Board of Directors Meeting
8:00 am - 2:00 pm
Desert Suite I

Meeting Registration
8:00 am - 8:00 pm
Grand Canyon Foyer 6

ANCILLARY MEETING: OPEN TO ALL MEETING ATTENDEES

Section 3: PC Clinical Studies
Co-Chair: Eli Sprecher, MD/PhD; Amy Paller, MD

Presentation of the general goals of the PC Physician Network with operative steps to move forward on three major fronts:

- Publicizing PC in medicine and to the public
- Publishing care guidelines for PC
- Multi-center clinical studies

Following the session, the IPCC will join the SID Translational Research Symposium, 12:00 pm - 3:00 pm, in Grand Canyon 6 -7.

For additional information, please contact:
Mary Schwartz, Director, PC Project
Tel: 877-628-7300 (toll free) / Fax: 877-628-7399
e-mail: Mary.Schwartz@pachyonychia.org
Wednesday, May 4, 2011
12:00 pm - 3:00 pm
Grand Canyon 6 - 7

OPEN TO TRANSLATIONAL RESEARCH TRACK PARTICIPANTS ONLY

Introduction
Hensin Tsao, MD/PhD
Associate Professor, Dept. of Dermatology
Harvard Medical School, Boston, Massachusetts

Is There a Place for the Academic Innovator?
R. Rox Anderson, MD
Harvard Medical School, Boston, Massachusetts

How Can the Licensing Office Maximize Your Innovation?
Irina Erenburg, PhD
Associate Director, Partners Research Ventures & Licensing
Mass General Hospital, Boston, Massachusetts

Licensing Opportunities: What is Industry Looking for in Terms of Creative and Marketable Ideas?
James H. Lee, MD/PhD
Executive Vice President and Chief Medical Officer
Graceway Pharmaceuticals, Exton, Pennsylvania

How, Where and When Should the Trials be Conducted?
Alexa Kimball, MD/MPH
Vice Chair, Dept. of Dermatology
Mass General Hospital, Boston, Massachusetts

What Do You Need from the FDA and What Does the FDA Need from You?
Lynn Drake, MD, FAAD
Lecturer in Dermatology
Harvard Medical School, Boston, Massachusetts

Panel Discussion
R. Rox Anderson, MD; Irina Erenburg, PhD; James H. Lee, MD/PhD;
Alexa Kimball, MD/MPH; Lynn Drake, MD, FAAD

ANCILLARY MEETINGS

Wednesday, May 4, 2011

Resident Retreat for Future Academicians
7:30 am - 3:00 pm
Desert Suite III and V

National Psoriasis Foundation
8:00 am - 11:00 am
Chairman’s Boardroom

SID Board of Directors Meeting
8:00 am - 2:00 pm
Desert Suite I

Meeting Registration
8:00 am - 8:00 pm
Grand Canyon Foyer 6
OPEN TO ALL MEETING ATTENDEES

Introduction
Doug Grossman, MD/PhD
Associate Professor of Dermatology and Oncological Sciences
Investigator, Huntsman Cancer Institute
University of Utah, Salt Lake City, Utah

Targeting B-RAF and Drug Resistance in Melanoma
Roger Lo, MD/PhD
Assistant Professor
University of California, Los Angeles, California

Stem Cell Based Correction of Genetic Skin Disease
Paul Khavari, MD/PhD
Chairman and Carl J. Herzog Professor, Dept. of Dermatology
Stanford University, Stanford, California

Pemphigus: A Model for the Development of Mechanism-based Therapies
David Rubenstein, MD/PhD
Louis C. Skinner Jr. Distinguished Professor
University of North Carolina Chapel Hill, Chapel Hill, North Carolina

RNAi Delivery for Skin Disease
Amy Paller, MD
Professor and Chair, Dept. of Dermatology
Northwestern University, Chicago, Illinois

Final Q & A and Wrap-up
Doug Grossman, MD/PhD
ALBERT M. Kligman / PHILLIP FROST LEADERSHIP LECTURE
THE NATURE OF THE MAMMALIAN PERMEABILITY BARRIER

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Peter Elias, MD
Professor
University of California, San Francisco, California

Dr. Elias is a staff physician in the Dermatology Research Unit, VAMC-San Francisco, and head of a multidisciplinary research group, focused on structure, function and metabolic basis for the epidermal permeability barrier; pathogenesis of ichthyoses and inflammatory dermatoses; and mechanisms of normal differentiation. Dr. Elias has trained numerous students from all over the world in stratum corneum morphology and in methods to elucidate its biological functions. Several of his post-doctoral fellows have become leaders in the field in their respective countries, where barrier research groups have since been established and are now flourishing, such as in South Korea, Germany and China.

LECTURESHIP HISTORY

Established in 2007 by Dr. Phillip Frost, the lectureship is intended to honor Dr. Albert M. Kligman, whose great commitment to dermatology and numerous contributions to the specialty has inspired generations of researchers and practitioners. The award is made to an individual in acknowledgment of significant contributions in the past five years to the understanding of structure and function of skin.
ANCILLARY MEETINGS

WEDNESDAY, MAY 4, 2011

Resident Retreat for Future Academicians
7:30 am - 3:00 pm
Desert Suite III and V

National Psoriasis Foundation
8:00 am - 11:00 am
Chairman’s Boardroom

SID Board of Directors Meeting
8:00 am - 2:00 pm
Desert Suite I

Meeting Registration
8:00 am - 8:00 pm
Grand Canyon Foyer 6

STATE-OF-THE-ART PLENARY LECTURE 1
HOW SKIN-RESIDENT DENDRITIC CELL SUBSETS CONTROL IMMUNE RESPONSES

.5 CME CREDITS

WEDNESDAY, MAY 4, 2011
5:30 pm - 6:00 pm
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Dan Kaplan, MD/PhD
Zelickson Professor
University of Minnesota, Minneapolis, Minnesota

Dr. Kaplan is Assistant Professor of Dermatology at the University of Minnesota. His research focus is the early events after antigen exposure in the skin that allows for the development of appropriate immune responses to pathogens while limiting responses directed against commensal organisms, concentrating on two opposing dendritic cell (DC) subsets in the skin.
STATE-OF-THE-ART PLENARY LECTURE 2
TOWARDS DECIPHERING THE GENETIC LANDSCAPE OF MELANOMA

Wednesday, May 4, 2011
6:00 pm - 6:30 pm
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Yardena Samuels, PhD
National Institutes of Health
Bethesda, Maryland

Dr. Samuels is Head of the Molecular Cancer Genetics Section at the National Institutes of Health. Dr. Samuels is using high-throughput DNA sequencing to search for additional mutated genes in melanoma. She is currently examining the genes encoding tyrosine and serine protein kinases, which play important roles in regulating the cellular events that lead to tumor formation. These genes are associated with a variety of human cancers and may be targets for therapeutic intervention.
Welcome Reception

Wednesday, May 4, 2011
7:00 pm - 9:00 pm
Ballroom Lawn

OPEN TO ALL MEETING ATTENDEES

Join us for a Welcome Reception to kick off the Meeting. All attendees are invited, free of charge, to gather for drinks and hors d’oeuvres and mingle with colleagues.
### Thursday Meeting-at-a-Glance

**Thursday, May 5, 2011**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>Society for Pediatric Dermatology</strong></td>
<td>7:00 am - 8:00 am</td>
<td>Desert Suite I</td>
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<tr>
<td><strong>Registration</strong></td>
<td>7:30 am - 4:00 pm</td>
<td>Grand Canyon Foyer 6</td>
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<tr>
<td><strong>Plenary Session I</strong></td>
<td>8:00 am - 9:00 am</td>
<td>Grand Canyon 6 - 7</td>
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<td><strong>Eugene M. Farber Lecture</strong></td>
<td>9:00 am - 9:30 am</td>
<td>Grand Canyon 6 - 7</td>
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<td><em>Psoriasis: Narrowing the Immunologic Target</em></td>
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<td>Kevin Cooper, MD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td><strong>Naomi M. Kanof Lecture</strong></td>
<td>9:30 am - 10:00 am</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td><em>How p53 Works</em></td>
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<td>Sir David Lane, PhD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td><strong>American Skin Association Achievement Awards</strong></td>
<td>10:00 am - 10:10 am</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td><strong>David Martin Carter Mentor Award</strong></td>
<td>10:10 am - 10:15 am</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td><em>Presented to John S. Strauss, MD and John A. Parrish, MD</em></td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td><strong>Clinical Scholars Program</strong></td>
<td>10:00 am - 11:30 am</td>
<td>Grand Canyon 8</td>
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<tr>
<td><strong>Poster Session I/Technical Exhibits Open with Coffee Break</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Grand Saguaro Ballroom</td>
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<td><strong>BCCNS Life Support Network</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Grand Canyon 9 - 10</td>
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<tr>
<td><strong>Research in Cutaneous Surgery Symposium</strong></td>
<td>10:00 am - 1:00 pm</td>
<td>Grand Canyon 11 - 12</td>
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<tr>
<td><strong>Mentorship Luncheon</strong></td>
<td>12:00 pm - 2:00 pm</td>
<td>Desert Suite III and V</td>
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<tr>
<td><em>TICKETED EVENT; PRE-REGISTRATION REQUIRED</em></td>
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<td><strong>Symposium I</strong></td>
<td>12:00 pm - 2:00 pm</td>
<td>Grand Canyon 8</td>
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<tr>
<td><em>New Therapeutics for Autoimmune Diseases</em></td>
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<tr>
<td><strong>Young Investigator and Trainee Symposium</strong></td>
<td>2:00 pm - 5:00 pm</td>
<td>Grand Canyon 8</td>
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<tr>
<td><em>Developing an Academic Career</em></td>
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<tr>
<td><strong>Cutaneous T Cell Lymphoma Symposium</strong></td>
<td>2:00 pm - 5:30 pm</td>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td><strong>Concurrent Minisymposia</strong></td>
<td>2:00 pm - 5:30 pm</td>
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<tr>
<td>1. Pigmentation and Melanoma (Wildflower Salon B)</td>
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<td>2. Hair and Cutaneous Development (Wildflower Salon A)</td>
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<td>3. Epidermal Structure and Function (Grand Canyon 4 - 5)</td>
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<td>4. Immunology I: Adaptive Immunity (Grand Canyon 9 - 10)</td>
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<td>5. Genetic Disease, Gene Regulation &amp; Gene Therapy (Grand Canyon 11 - 12)</td>
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<tr>
<td><strong>Social Event</strong></td>
<td>6:00 pm - 10:00 pm</td>
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<td><em>TICKETED EVENT; PRE-REGISTRATION REQUIRED</em></td>
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<td>See page 52 for additional information. Buses depart from the Ballroom Entrance beginning at 5:45 pm.</td>
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<td>Corona Ranch</td>
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Indicates CME Credit Offered
Moderator: Amy Paller, MD

Thursday, May 5, 2011
7:00 am - 8:00 am
Desert Suite I

OPEN TO ALL MEETING ATTENDEES

Overview of Pediatric Dermatology at SID

Presentations

1. Pathogenesis(pathway)-based therapy and genetic basis for lateralization in CHILD syndrome.  7:18 am, Poster #315
   Presented by Amy Paller, MD, Northwestern University

2. Increased DNA repair in xeroderma pigmentosum group C cells by induction of readthrough of stop codons.  7:26 am, Poster #377
   Presented by Christiane Kuschal, MD, National Cancer Institute and Kenneth Kraemer, MD, National Cancer Institute

3. Copy number variation analysis in PHACE syndrome.  7:34 am, Poster #428
   Presented by Dawn Siegel, MD, Medical College of Wisconsin  7:34

4. Oral azathioprine therapy improves the clinical and cutaneous antimicrobial response in children with moderate to severe atopic dermatitis.  7:42 am, Poster #537
   Presented by Wynnis Tom, MD, UCSD - Rady Children's Hospital

Concluding Remarks
Plenary Session 1

Presiders: Kim Yancey, MD and Kathleen Green, PhD

Thursday, May 5, 2011
8:00 am - 9:00 am
Grand Canyon 6 - 7

Open to all Meeting Attendees

1. Hematopoietic and mesenchymal stem cell transplantation for recessive dystrophic and junctional epidermolysis bullosa. Jakub Tolar, John A McGrath, Douglas R Keene, Maria Hordinsky, Mark J Osborn, Megan J Riddle, Ana Junqueira Bertin, David Woodley, Mei Chen, Alain Hovnanian, Katsuto Tamai, Bruce R Blazar and John E Wagner. Minneapolis, MN; London, United Kingdom; Portland, OR; Minneapolis, MN; Los Angeles, CA; Paris, France and Osaka, Japan. 8:00 am, Poster #535

2. The role of desmocollin 3 in skin tumor development and progression. Jiangli Chen, Charlene O’Shea, James E Fitzpatrick, Marankel Koster and Peter J Koch. Aurora, CO. 8:12 am, Poster #195

3. Oral prednisone use and risk of keratinocyte carcinoma: The VA topical tretinoin chemoprevention trial. Akerke T Baibergenova and Martin A Weinstock. Toronto, Canada; Providence, RI and Providence, RI. 8:24 am, Poster #205

4. Interference with the IL-1 network leads to impaired cutaneous response to vaccinia virus scarification. Tian Tian, Q Jin, K Dubin, G F Murphy, T S Kupper and R C Fuhlbrigge. Boston, MA and Palo Alto, CA. 8:36 am, Poster #640

5. Type IV collagen binding-site within type VII collagen is a pathogenic epitope for EBA autoantibodies. X. Wang, R. Gupta, A. Garlapati, J. Cogan, D. Woodley and M. Chen. Los Angeles, CA. 8:48 am, Poster #039
EUGENE M. FARBER LECTURE
PSORIASIS: NARROWING THE IMMUNOLOGIC TARGET

Thursday, May 5, 2011
9:00 am - 9:30 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Kevin Cooper, MD
Professor and Chair, Department of Dermatology
University Hospitals of Cleveland / Case Western Reserve University
Cleveland, Ohio

Dr. Cooper is Professor and Chairman of the Department of Dermatology at Case Western Reserve University (CWRU), and Director of the NIAMS Skin Diseases Research Center and NIAMS Psoriasis Center for Research at CWRU. He is also Director of the Murdough Family Center for Psoriasis at University Hospitals Case Medical Center. His research interests include Psoriasis, Atopic Dermatitis, Immunobiology, Photobiology, Autoimmunity, UV and Solar Effects, Immunomodulatory Therapy.

LECTURESHIP HISTORY

The Eugene M. Farber endowment was established by the family of Eugene M. Farber, MD, who devoted his scientific career to understanding the pathogenesis of psoriasis. In 2007, the SID Board of Directors voted to create the Eugene M. Farber Endowed Lecture. It is presented at the Society’s Annual Meeting by an investigator whose work is relevant to expanding our insights into the pathophysiology and treatment of psoriasis.
HOW p53 WORKS

Thursday, May 5, 2011
9:30 am - 10:00 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Sir David Lane, PhD
p53 Laboratory
Imunos, Singapore

Dr. Lane is Chief Scientist of A*STAR and Director of the p53 Laboratory, which primarily focuses on research on p53 using both mammalian and zebrafish systems. He is one of the scientists credited with the landmark discovery of cancer gene p53 in 1979. p53, called the “Guardian of the Genome” is considered the most significant of all the genes altered in cancer cells because mutations of the gene are known to cause almost 50% of all human cancers.

LECTURESHP HISTORY

Established in 1988, this award was established to honor the memory of Naomi Kanof, MD. The Naomi M. Kanof Lectureship honors an individual making significant contributions to the improvement of health through clinical research. Clinical research is broadly defined as any scientific endeavor with a direct application to improving the prevention, diagnosis or treatment of clinical disease. This investigative work can be based in the laboratory and should be implemented or just ready to be implemented in clinical practice.
American Skin Association Achievement Awards &
David Martin Carter Mentor Award

Thursday, May 5, 2011
10:00 am - 10:15 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

American Skin Association Achievement Awards

The American Skin Association presents its 2011 Achievement Awards to Allan Balmain, PhD; Jean Bolognia, MD; Jeffrey Callen, MD; Joel Gelfand, MD; and Akira Takashima, MD/PhD.

David Martin Carter Mentor Award

The American Skin Association presents the 2011 David Martin Carter Mentor Awards to John S. Strauss, MD and John A. Parrish, MD.
Clinical Scholars Program

Thursday, May 5, 2011
10:00 am - 11:30 am
Grand Canyon 8

Open to Clinical Scholars & Young Investigator/Trainee Track Participants Only

Plenary Presentations

1. Reversal of local immune evasion mechanisms and regression of human Merkel cell carcinoma by intralesional injection of interferon-beta. 10:00 am, Poster #547
   Presented by Paul Nghiem, MD/PhD, Associate Professor of Dermatology, University of Washington, Fred Hutchinson Cancer Center, Seattle, Washington

2. The dermis is not sterile: Discovery of a microbiome within and beneath the epidermis. 10:20 am, Poster #621
   Presented by Richard Gallo, MD/PhD, Chief of Dermatology, University of California, San Diego, LaJolla, California

Lecture

B-RAF inhibitors: Basic Science and Clinical Experience
Roger S. Lo, MD/PhD
Department of Dermatology
UCLA Medical Center, Los Angeles, California

Ancillary Meetings

Thursday, May 5, 2011

Society for Pediatric Dermatology
Open to all Meeting Attendees
7:00 am - 8:00 am
Desert Suite I

Meeting Registration
7:30 am - 4:00 pm
Grand Canyon Foyer 6

BCCNS Life Support Network
10:00 am - 12:00 pm
Grand Canyon 9-10

2. Expression of epidermal growth factor receptor (EGFR) and detection of mutant EGFR (EGFRvIII) in human cutaneous squamous cell carcinoma. M. DeMara, N. Duncan, S. Wong, M. Neuburg, Z. Lazarova and E B Olasz. Milwaukee, WI. 10:10 am, Poster #108


5. Laser assisted delivery of allogeneic porcine mesenchymal stem cells. Stephen Davis, Jill Waibel, Marcela Salgado, Luis Rodriguez-Menocal, Dwayne Ford and Evangelos V Badiavas. Miami, FL. 10:40 am, Poster #843

6. Cutaneous expression of neutrophil elastase in relation to IgA autoantibodies to nonapeptides of gliadin and tissue transglutaminase in dermatitis herpetiformis. Marian Dmochowski, Justyna Gornowicz, Agnieszka Seraszek, Elzbieta Kaczmarek and Monika Bowszczy-Dmochowska. Poznan, Poland. 10:50 am, Poster #009

7. Use of a magnet-containing barbell in the tongue to operate the tongue drive system. Julia Minocha, Jamee Holbrook, Behnaz Yousefi, Jeonghee Kim, Xueliang Huo, Diane Rowles, Brenda Bartlett, Lisa Ruppert, Sean Johnson-Bice, Dennis West, Emir Veledar, Elliot Roth, Maysam Ghovanloo and Anne Laumann. Chicago, IL and Atlanta, GA. 11:00 am, Poster #482


10. Biophotometric analysis reveals that self-perpetuating focal areas of hyperemia invariably precede cutaneous neoplasia and are suppressed by topical celecoxib treatment. Raymond L Konger, Ravi P Sahu, Zhengbin Xu and Young L Kim. Indianapolis, IN and West Lafayette, IN. 11:30 am, Poster #163
11. Time interval from diagnostic biopsy to surgical excision for melanoma at 4 institutions: Is it acceptable? Laura S Huff, Caroline A Chang, Paul Blomquist, Nellie Konnikov and Robert P Dellavalle. Aurora, CO; Boston, MA; Boston, MA and Denver, CO. 11:40 am, Poster #749

12. Real-time cell cycle imaging: Melanomas are composed of differentially cycling tumor cells in a subcompartment-specific distribution. Nikolas K Haass, Andrea Anfosso, Ichiko Kinjyo, Osami Kanagawa and Wolfgang Weninger. Sydney, Australia and Yokohama City, Japan. 11:50 pm, Poster #151

13. Early UV exposure and risk of multiple non-melanoma skin cancers in U.S. men and women. Erin X Wei, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA. 12:00 pm, Poster #213

14. Shh and Akt1 signaling pathways converge through mammalian target of rapamycin (mTOR) signaling to drive the growth of BCCs. Jungho Back, Yucui Zhu, Xiuwei Tang, Mohammad Athar, Arianna L Kim and David R Bickers. New York, NY and Birmingham, AL. 12:10 pm, Poster #133


16. Rapamycin augments the chemopreventive effects of sulindac and suppresses UVB-induced cutaneous photocarcinogenesis in Ptch+/- hairless mice. Sandeep C Chaudhary, Deepali Kurundkar, Tripti Singh, Zhiping Weng, Craig A Elmets, Levy Kopelovich and Mohammad Athar. Birmingham, AL and Bethesda, MD. 12:30 pm, Poster #152


18. A chemopreventive approach to familial melanoma. Vidhya Hariharan, JackB Longley and Isabelle Caroline Le Poole. Maywood, IL and Madison, WI. 12:50 pm
Mentorship Luncheon

Thursday, May 5, 2011
12:00 pm - 2:00 pm
Desert Suite III and IV

Ticketed Event; Pre-Registration Required

Young investigators are invited to attend this luncheon to hear about the value of mentorship to young investigators, learn about opportunities available through the SID, and to network.
**SYMPOSIUM 1**
**NEW THERAPEUTICS FOR AUTOIMMUNE DISEASES**

**Thursday, May 5, 2011**
12:00 pm - 2:00 pm
Grand Canyon 8

**OPEN TO ALL MEETING ATTENDEES**

**Welcome and Introduction**
Michael Hertl, MD
Professor and Chairman, Department of Dermatology
Phillips-University of Marburg, Marburg, Germany

Victoria Werth, MD
Professor, Department of Dermatology
University of Pennsylvania, Philadelphia, Pennsylvania

**B-cell biology related to non-depleting B cell regulatory approaches in autoimmune disease**
Peter E. Lipsky, MD
Charlottesville, Virginia

**The role of Th17 cells in autoimmunity and potential therapeutic target and Jak inhibitors—a new class of immunosuppressive drugs**
John O’Shea, MD
Scientific Director, Molecular Immunology and Inflammation Branch
NIAMS, Bethesda, Maryland

**Novel therapies: IgG-mediated autoimmunity in pemphigus**
Michael Hertl, MD
Professor and Chairman, Department of Dermatology
Phillips-University of Marburg, Marburg, Germany

**Immunosuppression and stem cell transplantation therapies for autoimmune disease**
Keith M. Sullivan, MD
Professor, Department of Medicine, Division of Cellular Therapy
Duke University, Durham, North Carolina

**Wrap-up**

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**ANCILLARY MEETINGS**

**THURSDAY, MAY 5, 2011**

**Society for Pediatric Dermatology**
*Open to all Meeting Attendees*
7:00 am - 8:00 am
Desert Suite I

**Meeting Registration**
7:30 am - 4:00 pm
Grand Canyon Foyer 6

**BCCNS Life Support Network**
10:00 am - 12:00 pm
Grand Canyon 9 - 10
Thursday, May 5, 2011
2:00 pm - 5:00 pm
Grand Canyon 8

OPEN TO YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS ONLY

Welcome and Introduction
Kristina Callis Duffin, MD

Mentoring & Finding a Niche
Stephen Katz, MD/PhD
Director
NIAMS, Bethesda, Maryland

Developing a Career in Clinical Research
Joel Gelfand, MD, MSCE
Assistant Professor
University of Pennsylvania, Philadelphia, Pennsylvania

Finding Funding: Part 1: Foundations and Other Sources to Get Started: What’s Out There?
Julie Block
National Eczema Association, San Rafael, California
Bruce Bebo, PhD
National Psoriasis Foundation, Portland, Oregon
George Hambrick, MD
American Skin Association, New York, New York
Kim Yancey, MD
The Dermatology Foundation, Dallas, Texas

Finding Funding: Part 2: NIH Funding Programs for Young Investigators
Carl Baker, MD/PhD
Program Director, Division of Skin and Rheumatic Diseases
National Institutes of Health, Bethesda, Maryland
Climbing the Academic Ladder  
Amy Paller, MD  
Professor and Chair, Department of Dermatology  
Northwestern University, Chicago, Illinois

Linking Bench to Bedside: Establishing Fruitful Collaborations Between Clinical and Academic Researchers  
James T. Elder, MD/PhD  
Professor  
University of Michigan, Ann Arbor, Michigan

Establishing a Clinical Niche  
Adam Rubin, MD  
Assistant Professor  
University of Pennsylvania, Philadelphia, Pennsylvania

Wrap-up  
Kristina Callis Duffin, MD  
Assistant Professor  
University of Utah, Salt Lake City, Utah
ANCILLARY MEETINGS

THURSDAY, MAY 5, 2011

Society for Pediatric Dermatology
Open to all Meeting Attendees
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Grand Canyon 9 - 10

THURSDAY SESSIONS

THURSDAY SESSIONS

NO CME CREDIT OFFERED

Presiders: Gary S. Wood, MD and Sam T. Hwang, MD/PhD

Thursday, May 5, 2011
2:00 pm - 5:30 pm
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

Introduction

Cutaneous Lymphoma Foundation Young Investigator Award
Oleg Akilov, MD/PhD University of Pittsburgh

Autoantibody to HSC70 in patients with tumor stage of mycosis fungoides. Oleg E Akilov,
Peter E Yeh, Brian Hood, Thomas P Conrads, Louis D Falo and Larisa J Geskin. Pittsburgh,
PA. 2:12 pm, Poster #611

1. Migration patterns of T_em and T_cm in humans: Lessons from CTCL lesional morphology.
Rachael A Clark, Rei Watanabe, Marianne Tawa, Natalie Adams, Andrew Dorosario, David C
Fisher and Thomas S Kupper. Boston, MA. 2:24 pm, Poster #593

2. Age-matched multiplex analysis reveals global immune dysregulation in patients
with CTCL. Larisa J Geskin, Oleg E Akilov, Diana E Linzer, Yan Lin, Louis D Falo and Anna E
Lokshin. Pittsburgh, PA. 2:36 pm, Poster #551

3. Regulation of FAS expression in cutaneous T-Cell lymphoma. Jianjiang Wu and Gary S
Wood. Madison, WI. 2:48 pm, Poster #122

4. In-situ expression of fas apoptotic pathway proteins in archival samples of cutaneous t-
cell lymphoma (ctcl), cutaneous anaplastic large cell lymphoma (alcl) and lymphomatoid
papulosis (lyp). Nathalie Stutz, Ryan D Johnson and Gary S Wood. Madison, WI. 3:00 pm,
Poster #112

5. Serum proteins responsible for pruritus in cutaneous T cell lymphoma. Hiraku Suga,
Makoto Sugaya, Tomomitsu Miyagaki, Hanako Ohmatsu, Hideki Fujita and Shinichi Sato.
Tokyo, Japan. 3:12 pm, Poster #486

6. Effect of extracorporeal photopheresis on dendritic cell populations in patients with
Sézary syndrome and graft-versus-host disease and its correlation with the
clinical response. Lisa Shiue, Madeleine Duvic, Meghali Goswami, Amin Alousi,
Chitra Hosing and Xiao Ni. Houston, TX. 3:24 pm, Poster #484

7. Positive results of a pivotal phase II trial testing a manufactured 0.02% mechlorethamine
gel in mycosis fungoides (MF). Stuart Lessin, Madeleine Duvic, Joan Guitart, Amit Pandya,
Bruce Strober, Elise Olsen, Christopher Hull, Elizabeth Knobler, Alain Rook, Ellen
Kim, Mark Naylor, David Adelson, Alexa Kimball, Gary Wood, Hong Wu, Barry Walker
and Youn Kim. Philadelphia, PA; Houston, TX; Chicago, IL; Dallas, TX; New York, NY;
Durham, NC; Salt Lake City, UT; Oklahoma City, OK; Boston, MA; Madison, WI; Radnor, PA and Palo
Alto, CA. 3:36 pm, Poster #503

8. Total skin electron beam and non-myeloablative allogeneic hematopoietic stem-cell
transplantation in advanced mycosis fungoides and sezary syndrome. Lotika Singh, Chitra
Hosing and Madeleine Duvic. Houston, TX. 3:48 pm, Poster #542
9. Comparing the effects of 9-cis UAB30, a novel rexinoid, and bexarotene on the rates of proliferation and apoptosis in human cutaneous T-cell lymphoma cell lines. Zoe Verney, Venkatram Attigada, Craig Elmets, Donald Muccio, Clinton Grubbs and Pi-Ling Chang. Birmingham, AL. 4:00 pm, Poster #074

10. Sirt1 histone deacetylase (HDAC) is increased in cutaneous t-cell lymphoma (CTCL) and its inhibition induces apoptosis. Minakshi Nihal, Nihal Ahmad and Gary S Wood. Madison, WI. 4:12 pm, Poster #137


13. Association of the numbers of CD163+ macrophages in lesional skin and serum levels of soluble CD163 with disease progression of cutaneous T cell lymphoma. Makoto Sugaya, Tomomitsu Miyagaki, Hanako Ohmatsu, Hiraku Suga, Hiromichi Kai, Masahiro Kamata, Yayoi Tada and Shinichi Sato. Tokyo, Japan. 4:48 pm, Poster #478

14. CD45RO loss in histopathological specimens of lymphomatoid papulosis. Derek V Chan, Savina Aneja, Kord S Honda and Kevin D Cooper. Cleveland, OH. 5:00 pm, Poster #604
Concurrent Minisymposium 1

PIGMENTATION & MELANOMA

Presiders: Anand Ganesan, MD/PhD and Maria Wei, MD/PhD

Thursday, May 5, 2011
2:00 pm - 5:30 pm
Wildflower Salon B

Open to All Meeting Attendees

1. The MEF2C transcription factor regulates melanocyte development, interacts directly with SOX10 and is a candidate gene for Waardenburg Syndrome. Maria L Wei, Pooja Agarwal, Michael Verzi, Thuyen Nguyen, David McCulley, Shan-Mei Xu, Evdokia Dodou, Joshua Anderson and Brian Black. San Francisco, CA. 2:00 pm, Poster #725

2. WIPI1 coordinates melanogenic gene transcription and melanosome formation via TORC1 inhibition. Hsiang Ho, Rubina Kapadia, Sejad Al-Tahan, Safoora Ahmad and Anand Ganesan. Irvine, CA. 2:12 pm, Poster #723


5. Linking UVB irradiation to pigmentation induction through FGF2-STAT3-PAX3 signaling in melanocytes. Yinchuan Li, Liang Dong, Eric Pier and Rutao Cui. Boston, MA. 2:48 pm, Poster #726

6. MAPK pathway regulates the expression of p18INK4c and p21Waf1/Cip1 cyclin-dependent kinase inhibitors through the AP-1 transcription factor. Ahmad Jalili, Christine Wagner, Kirsten D Mertz, Mikhail Pashenkov, Georg Stingl, Sridhar Ramaswamy and Stephan N Wagner. Vienna, Austria; Moscow, Russian Federation and Boston, MA. 3:00 pm, Poster #726

7. Targeting deregulated HIF1 signaling in human melanoma by conditional HIF1 knockdown promotes tumor progression. Kevin T Nash, Angelo E Ayar, Monique E Verhaegen, Tim M Johnson and Anj A Dlugosz. Ann Arbor, MI. 3:12 pm, Poster #715


9. Identification of EMMPRIN as a novel receptor for S100A9: Its involvement in melanoma metastasis. Toshihiko Hibino, Shoko Miyamoto, Masakiyo Sakaguchi, Akira Motoyama, Mami Yamamoto, Ryoji Tsuboi and Nam-ho Huh. Yokohama, Japan; Okayama, Japan and Tokyo, Japan. 3:36 pm, Poster #751

10. The redox antimalarial dihydroartemisinin targets human melanoma cells but not melanocytes through induction of NOXA (PMAIP1)-dependent apoptosis that occurs as a function of intracellular labile iron availability. Christopher M Cabello, Sarah D Lamore, Warner B Bair and Georg T Wondrak. Tucson, AZ. 3:48 pm, Poster #780
Concurrent Minisymposium 1 (Cont’d)

PIGMENTATION & MELANOMA

11. The effect of E-cadherin loss on melanoma progression and markers of epithelial-mesenchymal transition in a conditional mouse model. Lara E Rosenbaum, William E Damsky and Marcus Bosenberg. New Haven, CT. 4:00 pm, Poster #753

12. CCR7-expressing B16 melanoma cells down-regulate interferon (IFN)-γ-mediated inflammation and increase lymphangiogenesis in the tumor microenvironment. Tomonori Takekoshi, Lei Fang, Ryan Sells and Sam T Hwang. Milwaukee, WI and Bethesda, MD. 4:12 pm, Poster #727

13. Deficiency in IL-23, but not IL-12, promotes increased initiation and growth of melanocytic nevi induced by exposure to carcinogenic polyaromatic hydrocarbons. Tahseen Nasti, Nabiha Yusuf, Laura Timares and Craig Elmets. Birmingham AL. 4:24 pm, Poster #769

14. Epigenetic control of gene expression programs in the skin: Distinct nuclear architecture and higher order chromatin organization of cell-type specific genes in melanocytes and keratinocytes. Michal R Gdula, Tatyana Y Sharova, Michael Y Fessing and Andrey A Sharov. Boston, MA and Bradford, United Kingdom. 4:36 pm, Poster #762


Ancillary Meetings

Thursday, May 5, 2011

Society for Pediatric Dermatology
Open to all Meeting Attendees
7:00 am - 8:00 am
Desert Suite I

Meeting Registration
7:30 am - 4:00 pm
Grand Canyon Foyer 6

BCCNS Life Support Network
10:00 am - 12:00 pm
Grand Canyon 9 - 10
OPEN TO ALL MEETING ATTENDEES

1. Discovery of stable RNAs in the human hair shaft by RNA-seq: Implications for serial testing in personalized medicine. Gloria K Lefkowitz, Christopher A Cowing-Zitron, Anandaroop Mukhopadhyay and Benjamin D Yu. La Jolla, CA. 2:00 pm, Poster #448

2. Regulation of hair morphology by the dermal papilla. Woo Chi, David Enshell-Seijffers and Bruce A Morgan. Boston, MA. 2:12 pm, Poster #462

3. Role of aurora kinase-A in skin development. Enrique C Torchia, Lei Zhang, Aaron J Huebner, Subrata Sen and Dennis R Roop. Aurora, CO and Houston, TX. 2:24 pm, Poster #466

4. Coordinated activation of Wnt signaling in epithelial and melanocyte stem cells in a shared niche initiates pigmented hair follicle regeneration. Piul Rabbani, Makoto Takeo, Wei Chin Chou, Peggy Myung, Mark Taketo, Lynda Chin, Marcus Bosenberg and Mayumi Ito. New York, NY; Kyoto, Japan; Boston, MA; New Haven, CT and Cleveland, OH. 2:36 pm, Poster #472

5. Hdac1 and Hdac2 act redundantly to control p63 and p53 functions in epidermal progenitor cells. Matthew LeBoeuf, Anne Terrell, Sohum Trivedi, Xinyi Zhao, Satrajit Sinha, Jonathan Epstein, Eric Olson, Edward Morrisey and Sarah E Millar. Philadelphia, PA; Buffalo, NY and Dallas, TX. 2:48 pm, Poster #449

6. Epigenetic modulation of skin morphogenesis via global histone acetylation. Michael W Hughes, Ting-Xin Jiang, Sung-Jan Lin, Randy Widelitz and Cheng-Ming Chuong. Los Angeles, CA. 3:00 pm, Poster #474


8. Trps1 and its target gene Sox9 regulate epithelial proliferation in the developing hair follicle and are associated with hypertrichosis. Katherine A Fantauzzo and Angela M Christiano. New York, NY. 3:24 pm, Poster #455

9. The role of p63 in hair follicle stem cell activation. Veemuuragan Balaiva, Merlin Ariefdjohan, Peter J Koch and Marinkel Koster. Aurora, CO. 3:36 pm, Poster #463


11. Constitutive expression of Aryl hydrocarbon receptor in keratinocytes causes scarring alopecia. Sreejith P Panicker, Taneeta Ganguly, Ali A Lattif, Mary C Consolo, Masayuki Yamamoto, Kord Honda and Pratima Karnik. Cleveland, OH and Tsukuba, Japan. 4:00 pm, Poster #460

13. Role of vitamin D receptor in hair follicle cycling through local expression. Arnaud Teichert, Hashem Elalieh and Daniel Bikle. San Francisco, CA. 4:24 pm, Poster #446

14. Efficiency and efficacy of hair regeneration: Effect of dermal papilla cells on hair inductivity and quality. Chih-Chieh Chan, Wei-Ting Lin, Jung-Yi Chan, Tsung-Hua Tsai and Sung-Jan Lin. Taipei, Taiwan and New Taipei, Taiwan. 4:36 pm, Poster #452

15. Positive and negative effects of RAS on Shh transcription are both mediated through ETV4. Anandaroop Mukhopadhyay, Suguna R Krishnaswami, Christopher C Zitron, Shantanu Kumar and Benjamin D Yu. San Diego, CA. 4:48 pm, Poster #461
OPEN TO ALL MEETING ATTENDEES

1. Role of centrosomal proteins and cortical microtubules in epidermal barrier formation. Kaelyn Sumigray and Terry Lechler. Durham, NC. 2:00 pm, Poster #279

2. Psoriasis-like skin lesion induced by Raf-MAPK signaling requires Stat3 activation. Masahito Tarutani, Ken Miyoshi, Mikio Takaishi and Shigetoshi Sano. Nankoku, Japan. 2:12 pm, Poster #272

3. Abca12-mediated lipid transport and Snap29-dependent trafficking of lamellar granules are critical for epidermal morphogenesis. Qiaoli Li, Michael Frank, Masashi Akiyama, Hiroshi Shimizu, Eli Sprecher and Jouni Uitto. Philadelphia, PA; Sapporo, Japan; Nagoya, Japan and Tel Aviv, Israel. 2:24 pm, Poster #343

4. Loss of epidermal hypoxia-inducible factor-1alpha accelerates epidermal aging and affects reepithelization in human and mouse. Nsrein Ali, Hamid R Rezvani, Alain Taieb, Hubert de Verneuil and Frederic R Mazurier. Bordeaux, France. 2:36 pm, Poster #303

5. Involvement of multiple pathways in keratinocyte DNA degradation. Mami Yamamoto, Teruhiko Makino, Akira Motoyama, Ryoji Tsuboi and Toshihiko Hibino. Yokohama, Japan; Tokyo, Japan and Toyama, Japan. 2:48 pm, Poster #325

6. Increased endogenous retinoic acid by the absence of Cyp26b1 impairs peridermal development and skin barrier formation during development. Junko Okano, Ulrike Lichti, Maria Aronova, Guofeng Zhang, Stuart H Yuspai, Yasuo Sakai and Maria I Morasso. Bethesda, MD and Osaka, Japan. 3:00 pm, Poster #326

7. Impaired stratum corneum barrier and enhanced percutaneous immune responses in filaggrin knockout mice. Hiroshi Kawasaki, Keisuke Nagao, Akiharu Kubo, Tsuyoshi Hata, Hideaki Mizuno, Taketo Yamada and Masayuki Amagai. Tokyo, Japan and Wako, Japan. 3:12 pm, Poster #269


11. Insulin/IGF-1 signaling controls epidermal morphogenesis by regulating asymmetric divisions. Heike Stachelscheid, Christian Guenschmann, Annika Schmitz, Jens C Bruening and Carien M Niessen. Cologne, Germany. 4:00 pm, Poster #339
12. PKCδ suppresses keratinocyte proliferation by increasing p21<sup>CD1<sup> level via a KLF4-dependent mechanism. Yap C Chew, Gautam Adhikary and Richard L Eckert. Baltimore, MD. 4:12 pm, Poster #360

13. Combined biological and computational approaches to understand the role of Get1/Grhl3 in epidermal differentiation. Rachel P Herndon, Ambica Bhandari, Diana Dizon, Robert Chadwick, Jacob Biesinger, Xiaohui Xie and Bogi Andersen. Irvine, CA. 4:24 pm, Poster #362

14. ARNT-dependent expression of amphiregulin and consequent activation of EGFR/Erk pathway is essential for normal epidermal differentiation. Douglas Robertson, Lynda Weir, Irene M Leigh and Andrey A Panteleyev. Dundee, United Kingdom. 4:36 pm, Poster #262

15. Aryl hydrocarbon receptor modulates keratinocyte differentiation by SIRT1 expression. Gaku Tsuji, Masakazu Takahara, Hiroshi Uchi, Satoshi Takeuchi, Fumiko Yasukawa, Yoichi Moroi and Masutaka Furue. Fukuoka, Japan. 4:48 pm, Poster #328
**OPEN TO ALL MEETING ATTENDEES**

1. IRF8 is an essential regulator of CD8 T cell effector function. Fumi Miyagawa, Hong Zhang, Keiko Ozato, Yutaka Tagaya and Stephen Katz. Bethesda, MD. 2:00 pm, Poster #579

2. Autocrine TGFβ is required to prevent Langerhans cell migration. Aleh Bobr, Botond Z Igyarto, Krystal M Haley, Ming O Li, Richard A Flavell and Daniel H Kaplan. Minneapolis, MN; New York, NY and New Haven, CT. 2:12 pm, Poster #583

3. Epidermal LC mediate constitutive stimulation of skin resident tregs and thereby control the inadvertent activation of skin effector memory T cells (TRM) in normal skin. Julien Seneschal, Rachael A Clark and Thomas S Kupper. Boston, MA and Bordeaux, France. 2:24 pm, Poster #592

4. Skin-resident DC subsets promote distinct and opposing antigen-specific T helper responses. Botond Z Igyártó, Krystal Haley, Daniela Ortner, Maryam Gerami-Nejad, Sandra M Zurawski, Bernard Malissen, Gerard Zurawski, Judith Berman and Daniel H Kaplan. Minneapolis, MN; Dallas, TX and Marseille, France. 2:36 pm, Poster #584

5. Langerin+ Dermal DC, but not Langerhans cells, are required for effective CD8 mediated immune responses after skin scarification (S.S.) with Vaccinia virus (VACV). Julien Seneschal, Xiaodong Jiang and Thomas S Kupper. Boston, MA and Bordeaux, France. 2:48 pm, Poster #589

6. Granulocyte-derived dendritic cells (grDC) are specialized for bacterial antigen presentation. Shuo Geng, Hironori Matsushima, Paul Kotol, Richard Gallo and Akira Takashima. Toledo, OH and San Diego, CA. 3:00 pm, Poster #563


9. IL-37 suppresses contact hypersensitivity by inhibiting maturation of dendritic cells. Xiangna Cai, Yuchun Luo, Claudia A Nold-Petry, Marcel F Nold, Philip Bufler, Charles A Dinarello and Mayumi Fujita. Aurora, CO; Shantou, China and Munich, Germany. 3:36 pm, Poster #608

10. Production of SJS/TEN model mice using patients PBMCs and skin. Nao Saito, Riichiro Abe, Naoya Yoshioka, Hongjiang Qiao, Yasuyuki Fujita, Daichi Hoshina and Hiroshi Shimizu. Sapporo, Japan. 3:48 pm, Poster #561
11. β2-adrenergic agonists bias TLR-2- and NOD2-activated dendritic cells towards inducing an IL-17 immune response. Michela Manni, Richard D Granstein and Georges Maestroni. New York, New York and Locarno, Switzerland. 4:00 pm, Poster #557

12. Adenosine produced by regulatory T cells acts as chemo-attractant for dendritic cells and promotes formation of Treg-DC clusters. Sabine Ring, Alexander H Enk and Karsten Mahnke. Heidelberg, Germany. 4:12 pm, Poster #587

13. Pregnane X Receptor (PXR) regulates cutaneous immunity. Matthias Schmuth, Andreas Elentner, Frank Gonzalez and Sandrine Dubrac. Innsbruck, Austria and Bethesda, MD. 4:24 pm, Poster #586


15. GILT modulates CD4+ T cell tolerance to the melanoma antigen TRP1. Matthew P Rausch, Todd C Metzger, Mark S Anderson and Karen T Hastings. Phoenix, AZ and San Francisco, CA. 4:48 pm, Poster #601
1. Genomewide association study (GWAS) of infantile hemangiomas (IH). B Drolet, D Siegel, K Duffy, Y Chiu, R Lorier, A Stoddard and U Broeckel. Milwaukee, WI. 2:00 pm, Poster #427

2. Keratinocyte cell fate decisions are regulated by a novel microRNA-31/factor-inhibiting hypoxia-inducible factor 1 (FIH-1)/Notch relationship. Han Peng, Spiro Getsios and Robert M Lavker. Chicago, IL. 2:12 pm, Poster #372

3. A mutation in LIPN, encoding epidermal Lipase N, causes a late onset form of autosomal recessive congenital ichthyosis. Shirli Israeli, Ziad Khamaysi, Dana Fuchs-Telem, Janna Nousbeck, Reuven Bergman, Ofer Sarig and Eli Sprecher. Tel Aviv, Israel and Haifa, Israel. 2:24 pm, Poster #368

4. A splice site mutation in a skin-specific isoform of SMARCAD1 causes hereditary adermatoglyphia. Janna Nousbeck, Bettina Burger, Dana Fuchs-Telem, Mor Pavlovsky, Shlomit Fenig, Ofer Sarig, Peter Itin and Eli Sprecher. Tel Aviv, Israel and Basel, Switzerland. 2:36 pm, Poster #365

5. Long noncoding RNA programs active chromatin domain to coordinate homeotic gene expression. Kevin C Wang, Yul W Yang, Bo Liu, Amartya Sanyal, Ryan Corces-Zimmerman, Yong Chen, Bryan R Lajoie, Angeline Protacio, Ryan A Flynn, Rajinish A Gupta, Joanna Wysocka, Ming Lei, Job Dekker, Jill A Helms and Howard Y Chang. Stanford, CA; Worcester, MA and Ann Arbor, MI. 2:48 pm, Poster #373

6. Developing small molecule drugs to rescue nonsense mutations in disease-causing genes. Toshifumi Nomura, Ulrike Gartner, Stuart McElroy, Leah Torrie, Celine Pourreyron, Andrew P South, Gavin Wood, Andrew Woodland, Julie Frearson, Paul Wyatt and Irwin McLean. Dundee, United Kingdom. 3:00 pm, Poster #397

7. Copy number variation within the filaggrin gene contributes to risk of atopic dermatitis. Sara J Brown, Karin Kroboth, Aileen Sandilands, Linda E Campbell, Elizabeth Pohler, Alan D Irvine, Heather J Cordell and W H Irwin McLean. Dundee, United Kingdom; Dublin, Ireland and Newcastle, United Kingdom. 3:12 pm, Poster #411

8. Copy number variation (CNV) on ch4q26-27 is associated with Cantu syndrome, with hypertrichosis and cardiomegaly. Mazen Kurban, Chong Kim, Katherine Fantauzzo and Angela M Christiano. New York, New York and Sao Paulo, Brazil. 3:24 pm, Poster #418


10. Suppressing AP1 factor signaling in suprabasal epidermis causes nuclear loricrin accumulation and a progressive symmetric erythrokeratoderma-like phenotype. Ellen A Rorke, Gautam Adhikary and Richard L Eckert. Baltimore, MD. 3:48 pm, Poster #425
11. **Zebrafish model of lipoid proteinosis.** Qiaoli Li, Adele Donahue, Samantha Smith, John A McGrath, Noritaka Oyama and Jouni Uitto. Philadelphia, PA; London, United Kingdom and Fukushima, Japan. 4:00 pm, Poster #415

12. **Modulating keratinocyte intracellular Ca2+ via the sphingolipid pathway constitutes a novel therapeutic target for Darier’s Disease.** Anna Celli, Donald Mackenzie, Yongjiao Zhai, Chia Ling Tu, Daniel Bikle, Walter Holleran, Yoshikazu Uchida and Theodora Mauro. San Francisco, CA. 4:12 pm, Poster #379

13. **Homozygosity of dominant missense mutations in keratin 17 leads to alopecia in addition to severe pachyonychia congenita.** Neil J Wilson, C D Hansen, Monica L Cardenas Perez, Anders Vahlquist, Mary E Schwartz and Frances J Smith. Dundee, United Kingdom; Salt Lake City, UT; Cali, Colombia and Uppsala, Sweden. 4:24 pm, Poster #402

14. **Gene targeting induced by triplex-forming oligonucleotides in skin.** Yanhua Liang, Faye A Rogers, Peter M Glazer and Leonard M Milstone. New Haven, CT. 4:36 pm, Poster #421

15. **Non-aminoglycosides can restore type VII collagen function by overcoming premature stop mutations: Implications for DEB therapy.** J Cogan, Y Hou, X Wang, L Du, R Gatti, AS South, D Woodley and M Chen. Los Angeles, CA and Dundee, United Kingdom. 4:48 pm, Poster #387
Thursday, May 5, 2011
6:00 pm - 10:00 pm
Corona Ranch

Join us at Corona Ranch for a rodeo show that highlights the most exciting portions of both Western Rodeo and a Mexican Charreada. The Charreada (Mexican Rodeo) includes several different feats of horsemanship including riding, roping, accuracy, courage and style. The Western portion showcases some of the most exciting events that made Rodeo great, including Western-style wild bull riding, Western-style wild bronco riding, and much more. The event-filled Rodeo is professionally announced and designed for 45 minutes of “edge-of-the-seat” excitement!

- Buses will begin departing for the Corona Ranch at 5:45 pm from the Ballroom Entrance of the JW Marriott Desert Ridge
- Dinner Buffet will open at 6:45 pm
- Charreada Rodeo will begin at 8:00 pm
- Buses will begin departing for the JW Marriott at 8:45 pm
- Last bus will depart for the JW Marriott at 10:15 pm

Visit www.coronaranch.com for more information.
### FRIDAY MEETING-AT-A-GLANCE

**Friday, May 6, 2011**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
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<tbody>
<tr>
<td>Registration</td>
<td>7:30 am - 4:00 pm</td>
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<tr>
<td>Grand Canyon Foyer 6</td>
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<tr>
<td>Business Meeting for Members</td>
<td>7:30 am - 8:15 am</td>
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<tr>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Plenary Session II</td>
<td>8:15 am - 9:15 am</td>
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<tr>
<td>Grand Canyon 6 - 7</td>
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<tr>
<td>SIDES Program</td>
<td>9:00 am - 3:00 pm</td>
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<td>Wildflower C</td>
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<td>Stephen Rothman Award</td>
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<td>Presented to John R. Stanley, MD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Herman Beerman Lecture</td>
<td>9:25 am - 9:55 am</td>
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<tr>
<td>Defining the Cell Lineages at the Origin of Skin Cancers</td>
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<tr>
<td>Jennifer Lippincott-Schwartz, PhD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Celebrating NIAMS 25th Anniversary</td>
<td>9:55 am - 10:10 am</td>
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<td>David Bickers, MD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td>State-of-the-Art Plenary Lecture 3</td>
<td>10:15 am - 10:45 am</td>
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<tr>
<td>Defining the Cell Lineages at the Origin of Skin Cancers</td>
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<td>Cedric Blanpain, MD/PhD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td>State-of-the-Art Plenary Lecture 4</td>
<td>10:45 am - 11:15 am</td>
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<tr>
<td>Intrinsic and Extrinsic Regulation of Skin Stem Cells</td>
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<td>Valerie Horsley, PhD</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Poster Session II/Technical Exhibits Open with Coffee Break</td>
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<tr>
<td>Grand Saguaro Ballroom</td>
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<tr>
<td>Clinical Scholars Program</td>
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<td>Grand Canyon 8</td>
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<tr>
<td>SID Technical Workshop</td>
<td>12:00 pm - 2:00 pm</td>
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<tr>
<td>Confocal Microscopy and Imaging Techniques</td>
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<td>Grand Canyon 6 - 7</td>
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<tr>
<td>Women's Derm Society Luncheon &amp; Forum</td>
<td>12:00 pm - 2:00 pm</td>
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<td>Desert Suite III and V</td>
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<tr>
<td>Concurrent Minisymposia</td>
<td>2:00 pm - 5:30 pm</td>
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<tr>
<td>6. Immunology II: Innate Immunity and Microbiology (Wildflower A)</td>
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<td>7. Tissue Regeneration, Stem Cells and Wound Healing (Wildflower B)</td>
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<td>8. Carcinogenesis &amp; Cancer Genetics (Grand Canyon 11 - 12)</td>
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<td>9. Epidemiology/Health Services Research (Grand Canyon 9 - 10)</td>
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<td>JID Editorial Board Meeting</td>
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<td>Pinnacle Peak 2</td>
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<tr>
<td>North American Hair Research Society Scientific Meeting</td>
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<td>Desert Suites III and V</td>
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<tr>
<td>Galderma Japan Scientific Forum</td>
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<td>Desert Suites IV and VI</td>
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<tr>
<td>Trainee Dinner Session</td>
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<td>Grand Canyon 4 - 5</td>
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**ANCILLARY MEETINGS**

**FRIDAY, MAY 6, 2011**

<table>
<thead>
<tr>
<th>Event</th>
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<tbody>
<tr>
<td>Meeting Registration</td>
<td>7:30 am - 4:00 pm</td>
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<tr>
<td>Grand Canyon Foyer 6</td>
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<tr>
<td>SID Education for Students (SIDES)</td>
<td>9:00 am - 3:00 pm</td>
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<tr>
<td>Program</td>
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<tr>
<td>Grand Canyon Foyer 6</td>
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<tr>
<td>Women's Derm Society Luncheon &amp; Forum</td>
<td>12:00 pm - 2:00 pm</td>
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<td>Desert Suite III and IV</td>
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<tr>
<td>JID Editorial Meeting</td>
<td>4:00 pm - 6:00 pm</td>
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<td>Pinnacle Peak 2</td>
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<tr>
<td>Galderma Japan Scientific Forum</td>
<td>6:00 pm - 9:30 pm</td>
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<td>Desert Suite IV and VI</td>
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Indicates CME Credit Offered
BUSINESS MEETING FOR MEMBERS

Friday, May 6, 2011
7:30 am - 8:15 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

Presentations will be made by the President, Secretary-Treasurer, committee chairpersons of the SID and by the Journal editor. Members will elect new members and officers, approve the minutes of the 2010 Business Meeting and discuss SID affairs. Officials from the ESDR, JSID and SID leadership will also acknowledge travel grant recipients and provide updates on IID2013.

Appointment of Honorary Members

The SID is pleased to appoint the following honorary members.

David R. Bickers, MD
Chairman,
Dept. of Dermatology
Columbia University,
New York, New York

Ervin Epstein, MD
Children’s Hospital
Oakland Research Institute
Oakland, California

Stephen Katz, MD/PhD
Director
NIAMS,
Bethesda, Maryland

ESDR/JSID Young Investigator Collegiality awards

An initiative between the European Society for Dermatological Research (ESDR), the Society for Investigative Dermatology (SID), and the Japanese Society for Investigative Dermatology (JSID), the Young Investigator Collegiality Travel Awards are designed to promote the academic career development of researchers and clinician-scientists in investigative dermatology. The vision of the three societies is to help promising researchers obtain international exposure of their work and thereby enhance their professionalism and sense of achievement.

This year’s Young Investigator Collegiality Awards are presented to Eva Hadaschik, MD; Hiroshi Kawasaki, MD; Shinji Noda, MD; and Takashi Okamoto, MD/PhD.
1. An investigator-initiated, phase II randomized, double-blind, placebo-controlled trial of GDC-0449 for prevention of BCCs in basal cell nevus syndrome (BCNS) patients. Jean Y Tang, Julian M Mackay-Wiggan, Michelle Aszterbaum, Joselyn Lindgren, Kris Chang, Carol Coppola, Angela Campbell, Anita Chanana, Jackleen Marji, David R Bickers and Ervin H Epstein. Oakland, CA; Redwood City, CA and New York, NY. 8:15 am, Poster #549

2. Intu controls hair follicle formation through regulating primary cilia formation in epidermal keratinocytes. Daisy Dai, Li Li, Huiqing Zeng, Aimin Liu and Jiang Chen. Aurora, CO and University Park, PA. 8:27 am, Poster #444

3. IL-9 is a potent mediator of tumor immunity, and its expression is negatively regulated by the Th17 transcription factor RORγ. R Purwar, S Xiao, Y Takeda, W Elyaman, X Jiang, A Jetten, S Khoury, R Fuhlbrigge, V Kuchroo and T Kupper. Boston, MA and Triangle Park, NC. 8:39 am, Poster #595

4. Epidermal tissue differentiation and lipid barrier function requires the long non-coding RNA Linc19A. Markus Kretz, Daniel Webster, Zurab Siprashvili, Ashley Zehnder, Cari Lee, Ross Flockhart, Jennifer Chow, Grace Kim, John Rinn, Howard Chang and Paul Khavari. Palo Alto, CA. 8:51 am, Poster #396

5. Hairless is a H3K9 histone demethylase. Liang Liu, Hyunmi Kim, Alex Casta, Courtney Luke, Yuki Kobayashi, Lawrence S Shapiro and Angela M Christiano. New York, NY. 9:03 am, Poster #409
The Stephen Rothman Memorial Award is presented annually for distinguished service to investigative cutaneous medicine. The recipient of this award has made major scientific achievements and excelled as a teacher and recruiter of outstanding dermatologists. The recipient is an individual who has distinctly altered the course and image of dermatology or its allied fields. It is the Society’s highest award.

2011 Stephen Rothman Award Recipient
John R. Stanley, MD
Professor
University of Pennsylvania, Philadelphia, Pennsylvania
Herman Beerman Lecture
Super-Resolution Imaging with Photoactivatable Fluorescent Proteins

Friday, May 6, 2011
9:25 am - 9:55 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Jennifer Lippincott-Schwartz, PhD
National Institutes of Health
Bethesda, Maryland

Jennifer Lippincott-Schwartz is Chief of the Organelle Biology Section in the Cell Biology and Metabolism Branch of the National Institutes of Health. Dr. Lippincott-Schwartz’s research uses live cell imaging approaches to analyze the spatio-temporal behavior and dynamic interactions of molecules in cells. Her work covers a vast range of cell biological topics, including protein transport and the cytoskeleton, organelle assembly and disassembly, and the generation of cell polarity.

LECTURESHIP HISTORY

This award is given in recognition of Dr. Herman Beerman’s long and devoted service to the SID and his efforts to secure for it a position of respect in the scientific community. The Herman Beerman Lecture is given by a distinguished medical scholar at a scientific session of the Society’s Annual Meeting. Traditionally, lecturers from fields other than dermatology are chosen in order to give meeting attendees the opportunity to learn about scientific advances in other fields.
CELEBRATING NIAMS 25TH ANNIVERSARY

Friday, May 6, 2011
9:55 am - 10:10 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

Join David Bickers, MD, former SID Secretary-Treasurer (1989-1999), to celebrate the contributions made by the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) to skin disease research. The rich history with the SID includes: advocacy efforts made by the SID on behalf of the Institute and the NIH; interaction with SID members and their contributions to NIAMS policy and strategic activities; and the research made possible by NIAMS funding published in the JID. Special thanks will be made to NIAMS Director and former SID President (1994), Stephen Katz, MD/PhD.
STATE-OF-THE-ART PLENARY LECTURE 3
DEFINING THE CELL LINEAGES AT THE ORIGIN OF SKIN CANCERS

EMBO Young Investigator Lecture

Friday, May 6, 2011
10:15 am - 10:45 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Cedric Blanpain, MD/PhD
Interdisciplinary Research Institute
Brussels, Belgium

Dr. Blanpain holds a tenure position at the Belgian National Research Scientific Fund at the Interdisciplinary Research Institute, Université Libre de Bruxelles, Belgium. His research focuses on the mechanism regulating stem cell fate decision during embryonic development and tissue homeostasis and the implication of stem cell during cancer development.

ANCILLARY MEETINGS

FRIDAY, MAY 6, 2011

Meeting Registration
7:30 am - 4:00 pm
Grand Canyon Foyer 6

SID Education for Students (SIDES) Program
9:00 am - 3:00 pm
Wildflower C

Women’s Derm Society Luncheon & Forum
12:00 pm - 2:00 pm
Desert Suite III and IV

JID Editorial Meeting
4:00 pm - 6:00 pm
Pinnacle Peak 2

Galderma Japan Scientific Forum
6:00 pm - 9:30 pm
Desert Suite IV and VI

FRIDAY SESSIONS
STATE-OF-THE-ART PLENARY LECTURE 4
INTRINSIC AND EXTRINSIC REGULATION OF SKIN STEM CELLS

Friday, May 6, 2011
10:45 am - 11:15 am
Grand Canyon 6 - 7

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Valerie Horsley, PhD
Yale University
New Haven, Connecticut

Dr. Horsley is an Assistant Professor at Yale University. Her lab studies the cellular and molecular mechanisms that control stem cell activity and function within epithelia, the tissues that line internal organs and outer surfaces. The lab uses the mouse as a genetic model system to study how adult stem cells within epithelial tissues maintain tissue homeostasis, wound healing and can contribute to cancer formation.
CLINICAL SCHOLARS PROGRAM

Friday, May 6, 2011
11:30 am - 1:30 pm
Grand Canyon 8

OPEN ONLY TO CLINICAL SCHOLARS & YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS

Plenary Presentations

1. Identification of a novel pro-inflammatory human skin-homing Vγ9Vδ2 T cell subset and its role in the pathogenesis of psoriasis. 11:30 am, Poster #006
   Presented by Brian J. Nickoloff, MD/PhD, Professor & Vice Chairman of Research, Department of Pathology, Loyola University, Chicago, Illinois

2. The bulge area is the major hair follicle source of nestin-expressing cells which can repair the spinal cord compared to the dermal papilla. 11:50 am, Poster #783
   Presented by Robert M. Hoffman, PhD, Professor of Surgery, President, Anticancer, Inc., University of California, San Diego, La Jolla, California

Lectures

Psoriasis and the Risk of Systematic Disease: Implications for Clinical Practice
Joel M. Gelfand, MD, MSCE
Assistant Professor
University of Pennsylvania, Philadelphia, Pennsylvania

Mitotic Recombination in Ichthyosis with Confetti causes Widespread Reversion of Dominant Mutations in KRT10
Keith Choate, MD/PhD
Associate Professor, Department of Dermatology
Stanford University, Stanford, California

ANCILLARY MEETINGS

FRIDAY, MAY 6, 2011

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4:00 pm - 6:00 pm
Pinnacle Peak 2

Galderma Japan Scientific Forum
6:00 pm - 9:30 pm
Desert Suite IV and VI

FRIDAY SESSIONS
## Welcome and Introduction

David Rubenstein, MD/PhD  
Professor, Department of Dermatology  
University of North Carolina, Chapel Hill, North Carolina

Kathleen J Green, PhD  
Professor, Department of Pathology  
Northwestern University, Chicago, Illinois

## Keynote Lecture

**Imaging: Visualizing the Possibilities — Navigating the Cellular Landscape with New Optical Probes, Imaging Strategies and Technical Innovations**

Jennifer Lippincott-Schwartz, PhD  
Senior Investigator, Chief of the Section on Organelle Biology, Cell Biology and Metabolism Branch  
National Institute of Child Health & Human Development, Bethesda, Maryland

## Vignettes

**Moderator:** Teng-Leong Chew, PhD  
Director, Cell Imaging Facility & Nikon Imaging Center  
Northwestern University, Chicago, Illinois

**Vignette I: Shedding Light on Epidermal Morphogenesis — Zeiss Apotome and Multi-photon Strategies for Epidermal Organotypic Culture Analysis**

Spiro Getsios, PhD  
Assistant Professor, Department of Dermatology  
Director, Skin Disease Research Center Keratinocyte Core  
Northwestern University, Chicago, Illinois

**Vignette II: High Throughput Quantitative Analysis — High Throughput Quantitative Analysis of Tissue Sections and Microarrays (including analysis of subcellular localization)**

Georg Steiner  
CEO  
TissueGnostics, Los Angeles, California

**Vignette III: In Vivo/Intravital Imaging — Intravital imaging: What are the Possibilities?**

Bojana Giljorijevic, PhD  
Research Associate, Department of Anatomy and Structural Biology  
Yeshiva University, New York, New York

## General Discussion and Wrap Up

Opportunity to Meet with Presenters
CONCURRENT MINISYMPOSIUM 6
IMMUNOLOGY II: INNATE IMMUNITY AND MICROBIOLOGY

3.5 CME CREDITS

Presiders: Lloyd Miller, MD/PhD and Anna DiNardo, MD/PhD

Friday, May 6, 2011
2:00 pm - 5:30 pm
Wildflower A

OPEN TO ALL MEETING ATTENDEES

1. Cutaneous papillomatosis due to a novel laboratory mouse papillomavirus (MusPV) infection. John P Sundberg, Christopher S Potter, Kathleen A Silva, Arvind Ingle, J Joh, Shin J Lim and A B Jenson. Bar Harbor, ME; Louisville, KY and Mumbai, India. 2:00 pm, Poster #643

2. Viral envelopes induce mast cell degranulation through sphingosine 1-phosphate receptor-2 pathway. Zhenping Wang and Anna Di Nardo. La Jolla, CA. 2:12 pm, Poster #616


4. The dermis is not sterile: Discovery of a microbiome within and beneath the epidermis. Teruaki Nakatsui, Shangi B Jiang, Kimberly N Kanada and Richard L Gallo. San Diego, CA. 2:36 pm, Poster #621

5. Staphylococcus aureus infection in mouse skin induces antimicrobial peptide expression — the effect is partially regulated by IL-1. Kerstin Ahrens, John S Cho, Jürgen Harder, Lloyd S Miller and Ehrhardt Proksch. Kiel, Germany and Los Angeles, CA. 2:48 pm, Poster #618

6. Real-time kinetics and mechanism of IL-1β production during a S. aureus skin infection in vivo. John S Cho, Frank Hebroni, Romelal Ramos, Hironori Matsushima, Akira Takashima and Lloyd Miller. Los Angeles, CA and Toledo, OH. 3:00 pm, Poster #624


9. Psoriatic patients show enhanced cathelicidin expression after injury and this is normalized by TNF-α inhibition. Jeremiah Miller, Tissa Hata, Paul Kotol, Michelle Jackson, Doru Alexandrescu, Filamer Kabigtin, Monika Gerber, Yuping Lai and Richard Gallo. La Jolla, CA. 3:36 pm, Poster #613

11. Ultraviolet damage to non-coding RNA triggers skin inflammation. Jamie J Bernard, Christopher Cowing-Zitron, Teruaki Nakatsuji, Benjamin D Yu and Richard L Gallo. San Diego, CA. 4:00 pm, Poster #614

12. Imiquimod-induced TLR7 signaling enhances repair of DNA Damage Induced by UVL in bone marrow-derived cells. Rita Fishelevich, Yuming Zhao, Papapit Tuchinda, Hannah Liu, T C Meng, Jim Lee and Anthony Gaspari. Baltimore, MD and Exton, PA. 4:12 pm, Poster #652


14. IFN-α activation of a vitamin D-dependent antimicrobial response depends on skin pigmentation. Mario Fabri and Robert L Modlin. Los Angeles, CA and Cologne, Germany. 4:36 pm, Poster #635

15. Modulation of Toll-like receptor responses by bone morphogenic protein 4 (BMP4). Navid Ezra, Miguel-Angel Gutierrez, Rosane Teles, Dennis Montoya, Maria Teresa Ochoa, Delphine Lee, Daniel Cruz and Robert Modlin. Los Angeles, CA. 4:48 pm, Poster #626
CONCURRENT MINISYMPOSIUM 7
TISSUE REGENERATION, STEM CELLS AND WOUND HEALING

Presiders: Valerie Horsley, PhD and Angela Christiano, PhD

Friday, May 6, 2011
2:00 pm - 5:30 pm
Wildflower B

OPEN TO ALL MEETING ATTENDEES

1. Hair follicle neogenesis induced by fibroblast-like skin tumor cells from patients with tuberous sclerosis complex. Shaowei Li, Rajesh L Thangapazham, Ji-an Wang, Sangeetha Rajesh, Tzu-Cheg Kao, Leonard Sperling, Joel Moss and Thomas N Darling. Bethesda, MD. 2:00 pm, Poster #786

2. Quantitative hair plucking reveals stem cell activation is modulated by interactions with extra-follicular macro-environment. Chih C Chen, Maksim Plikus and Cheng M Chuong. Los Angeles, CA and Taipei, Taiwan. 2:12 pm, Poster #797


6. Skin-derived precursors as a source of progenitors for cutaneous nerve regeneration. Sanjay Pradhan, Chiachi Liu and Lu Q Le. Dallas, TX. 3:00 pm, Poster #784

7. Compromised TGF-β signaling, reduced wound healing and spontaneous skin erosions characterize CLIC4-/- mice. Padmamukar Velayuthan Chellammal, Mary Ann Stepp, Kelsey Speer, Samuel Dengler, John Edwards, Vincenzo Coppola, Lino Tessarollo and Stuart Yuspa. Bethesda, MD; Washington DC; Frederick, MD and Chapel Hill, NC. 3:12 pm, Poster #785

8. Targeted genetic alteration in hyaluronan catabolism delays wound healing in mice. Jun Muto, Aaron F Carlin, Andrea Garcia, Ajit Varki and Richard L Gallo. La Jolla, CA. 3:24 pm, Poster #800

9. Evidence for the existence of phenotypically distinct progenitors in epidermis. Alexandra Charruyer, Lauren R Strachan, Stephen Fong, Lili Yue, Malik Abdul, Maria L Mancianti and Ruby Ghadially. San Francisco, CA and Berkeley, CA. 3:36 pm, Poster #824


11. The collagen XVII-binding protein actinin-4 regulates the directed migration of keratinocytes. Kevin J Hamill, Omar Skalli and Jonathan C Jones. Chicago, IL and Memphis, TN. 4:00 pm, Poster #822
12. Transregulation of α2 and α3 integrin expression by α6β4 integrin in migrating keratinocytes. Kristina Kligys, Susan Hopkinson and Jonathan Jones. Chicago, IL. 4:12 pm, Poster #821


14. Elastin is essential for vascular development — A zebrafish model. Qiaoli Li, Adele Donahue, Hye Young Choi and Jouni Uitto. Philadelphia, PA and Seoul, South Korea. 4:36 pm, Poster #830

15. The bulge area is the major hair follicle source of nestin-expressing cells which can repair the spinal cord compared to the dermal papilla. Fang Liu, Aisada Uchugonova, Hiroaki Kimura, Chuansen Zhang, Ming Zhao, Lei Zhang, Karsten Koenig, Jennifer Duong, Ryoichi Aki, Norimitsu Saito, Sumiyuki Mii, Yasuyuki Amoh, Kensei Katsuoka and Robert M Hoffman. San Diego, CA; Shanghai, China; Saarbruecken, Germany; Kanazawa, Japan and Kanagawa, Japan. 4:48 pm, Poster #783
Engineered dendritic cell (DC)- or DNA-based vaccines raise immune responses to a carcinogen-induced point mutation of the H-ras oncogene that protects against tumor development. Kyle Rudemiller, Tahaseen Nasti, George Twitty, Hee Kyung Kim, Angel Rivera, Justin Roth, Aton Holzer, Yuko Tsruta, Nabiha Yusuf, Mohammad Athar, Craig Elmets and Laura Timares. Birmingham, AL. 2:00 pm, Poster #149

Relation between DNA damage accumulation, reactive oxygen species, and metabolism alteration during carcinogenesis. Hamid R Rezvani, Arianna Kim, Hubert D Verneuil, Alain Taieb, David Bickers and Frederic Mazurier. Bordeaux, France and New York, NY. 2:12 pm, Poster #114

Voriconazole treatment plus UVB irradiation causes malignant transformation of human HaCaT keratinocytes. Ricardo L Berrios, Abel Martin-Garrido, Michael Y Bonner, Brian P Pollack and Jack L Arbiser. Atlanta, GA and Decatur, GA. 2:24 pm, Poster #091

Interferon-γ/STAT1-signaling determines whether T cells promote or arrest carcinogenesis. Sonja Fischer, Thomas Wieder, Heidi Braumüller, Ellen Brenner, Wolfgang Kempf and Martin Röcken. Tuebingen, Germany. 2:36 pm, Poster #132

IL-17 receptor A deficient mice are resistant to chemical carcinogen induced cutaneous tumors. Donggou He, Hui Li, Nabiha Yusuf, Craig A Elmets, Mohammad Athar, Santosh Katiyar, Jun Li, John Mountz and Hui Xu. Birmingham, AL. 2:48 pm, Poster #141

An inflammatory response in the ΔNp63 transgenic mice reveals a pro-tumorigenic role for ΔNp63. Rose-Anne Roman and Saratjit Sinha. Buffalo, NY. 3:00 pm, Poster #124

Srcasm induces regression of pre-existing squamous cell carcinomas in K14-Fyn Y528F mice. Xiaoping Yang, Hiroyuko Nishida, Liang Zhao, Christine Marshall, Tzvete Dentchev and John Seykora. Philadelphia, PA. 3:12 pm, Poster #140

Oncogene addiction to Merkel cell polyomavirus large T antigen in Merkel cell carcinoma. Monique E Verhaegen, Christopher K Bichakjian, Melissa Voutsalath, Jack Weick, Paul Baciu, Elsa Quintana, Tracy D Stromer, Joanna Pero, Kevin T Nash, Angelo E Ayar, Timothy M Johnson and Andrzej A Dlugosz. Ann Arbor, MI. 3:24 pm, Poster #143

Tumor derived nitric oxide suppresses the expression of CXCL10 and leads to the poor outcome of Stage III melanoma. Keiji Tanese, Elizabeth Grimm and Suhendan Ekmekcioglu. Houston, TX and Tokyo, Japan. 3:36 pm, Poster #092

Fusion of the melanoma gene, p14arf on 9p, to a translocation hotspot in a gap in 22q in a patient with melanoma, deafness and DNA repair deficiency, is a negative regulator of p14arf and TBX1. Xiao Hui Tan, Sarah L Anzick, Sikandar G Khan, Takahiro Ueda, Gary Stone, John J DiGiovanna, Deborah Tamura, Daniel Wattendorf, Carmen Brewer, Chris Zalewski, Robert Walker, Andrew Griffith, John Butman, Paul Meltzer, Paul Bergstresser and Kenneth H Kraemer. Bethesda, MA; Tokyo, Japan; Bethesda, MD; Washington, DC and Dallas, TX. 3:48 pm, Poster #126
11. **The deacetylase SIRT1 regulates global genome nucleotide excision repair.** Mei Ming, Christopher R Shea, Xiumei Guo, Xiaoling Li, Keyoumars Soltani, Weinong Han and Yu-Ying He. Chicago, IL and Research Triangle Park, NC. 4:00 pm, Poster #086

12. **Differentially-expressed genes identified from patients with Langerhans cell histiocytosis.** Joanne L Selway, Paul M Seldon, Parvathy Harikumar, Kenneth Langlands and Anthony C Chu. Buckingham, United Kingdom and London, United Kingdom. 4:12 pm, Poster #090

13. **Reprogramming genes for induced pluripotent stem cells (iPSCs) reversed changes associated with epithelial-to-mesenchymal transition of skin cancer cells.** Mikiro Takaishi, Maki Yokogawa, Junji Takeda and Shigetoshi Sano. Nankoku, Japan and Suita, Japan. 4:24 pm, Poster #093

14. **Cross talk of melanoma cells and peritumoral fibroblasts influences melanoma proliferation: Regulation of hyaluronan synthesis in fibroblasts.** Ulf Anderegg, Anja Willenberg, Anja Saalbach and Jan C Simon. Leipzig, Germany. 4:36 pm, Poster #094

15. **HGF transactivates keratinocyte EGFR signaling, potentiates the tumorigenic phenotype of oncogenic ras-transduced keratinocytes in vitro and enhances skin carcinogenesis in vivo.** Fan Liu, Christophe Cataisson, Raza Zaidi, Glenn Merlino and Stuart H Yuspa. Bethesda, MD and Chevy Chase, MD. 4:48 pm, Poster #098
Presiders: Joel Gelfand, MD and Abrar Qureshi, MD/MPH

Friday, May 6, 2011
2:00 pm - 5:30 pm
Grand Canyon 9 - 10

OPEN TO ALL MEETING ATTENDEES

1. Patients with psoriasis are at an increased risk of diabetes - a population based study. Nicole M Seminara, Rahat S Azfar, Daniel B Shin, Andrea B Troxel, David J Margolis and Joel M Gelfand. Philadelphia, PA. 2:00 pm, Poster #206

2. Psoriasis is associated with an increased prevalence of metabolic syndrome that varies directly with objectively measured severity. Sinead Langan, Nicole Seminara, Daniel Shin, Andrea Troxel, Stephen Kimmel, Nehal Mehta, David Margolis and Joel Gelfand. Philadelphia, PA. 2:12 pm, Poster #211


4. A prospective study of physical activity and risk of incident psoriasis in women. Hillary C Frankel, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA. 2:36 pm, Poster #216


6. An analysis of the characteristics of initial and second primary melanomas using data from the Surveillance, Epidemiology, and End Results (SEER) Program. Michael E Ming and Daniel B Shin. Philadelphia, PA. 3:00 pm, Poster #224

7. Calcium plus vitamin D supplementation and the risk of nonmelanoma and melanoma skin cancer. Teresa Fu, Jean Y Tang, Erin LeBlanc, JoAnn E Manson, David Feldman, Joe Larson, Eleni Linos, Mara Z Vitolinis, Nathalie C Zeitouni and Marcia L Stefanick. Redwood City, CA; Portland, OR; Boston, MA; Seattle, WA; Buffalo, NY and Winston-Salem, NC. 3:12 pm, Poster #208

8. Menopausal hormones and skin cancer risk in postmenopausal women: The women's health initiative hormone therapy trials. Katrina M Spaunhurst, Jean Y Tang, Elizabeth Keiser, Matthew L Anderson, Rowan T Chlebowski, Joseph C Larson, Judith Ockene, Fridtjof Thomas, Jean Wachtawski-Wendel, Nathalie Zeitouni and Marcia L Stefanick. Stanford, CA; Los Angeles, CA; Worcester, MA; Houston, TX; Seattle, WA; Buffalo, NY and Memphis, TN. 3:24 pm, Poster #209

9. Atopic dermatitis prevalence and co-morbidities in the Growing Up Today Study II. Hillary C Frankel, Lindsay Frazier, Carlos A Camargo, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA. 3:36 pm, Poster #257

11. Treatment for nonmelanoma skin cancer among patients with limited life expectancies. M Chren, E Linos, R Parvataneni, J Torres, S Stuart, W J Boscardin and C S Landefeld. San Francisco, CA and Stanford, CA. 4:00 pm, Poster #256


13. Validation of the AJCC staging system for cutaneous squamous cell carcinoma and a proposed refinement to improve prognostic discrimination. Anokhi Jambusaria, Peter Kanetsky, Wei-Ting Hwang, Joel Gelfand, Faith Whalen, Rosalie Elenitsas, George Xu and Chrysalyne Schmults. Philadelphia, PA; Jamaica Plain, MA and Danville, PA. 4:24 pm, Poster #210

14. DNA in the mail. D J Margolis, A Apter, N Mitra, I McLean and T Rebbeck. Philadelphia, PA and Dundee, United Kingdom. 4:36 pm, Poster #248

OPEN TO ALL MEETING ATTENDEES

6:00 pm - 6:45 pm  Poster Presentations & Reception
1. Dermal papilla cells promote trichogenesis in engineered skin substitutes. Penkanok Sriwiriyanont, Elizabeth A Maier, Kaari A Lynch, Dorothy M Supp and Steven T Boyce. Cincinnati, OH.  Poster #470

2. Combination of human epidermal-dermal equivalents and primary human sebocyte cultures for evaluating topical sebum inhibitors. Wen-Hwa Li, Apostolos Pappas, Magdalena Eisinger and Li Zhang. Skillman, NJ.  Poster #441

3. Wound healing milieu protects against chemotherapy induced alopecia. Julia Escandon, Olivera Stojadinovic, Lucia M Mauro, Tongyu Cao Wikramanayake, Marjana Tomic-Canic and Joaquin J Jimenez. Miami, FL.  Poster #430

4. The presence of antigen-specific CTLs to melanin-associated protein, MAGE3, in the patients with alopecia areata. Taisuke Ito, Hideo Hashizume, Masahiro Takigawa and Yoshiki Tokura. Hamamatsu, Japan.  Poster #453

5. Murine alopecia areata immunopathogenesis is dominated by NKG2D positive CD8 T cells and NKG2D blockade protects hair follicles from cytolytic attack. Luzhou Xing, Pallavi Singh, Claire Higgins, Sivan Harel, AngelaM Christiano and Raphael Clynes. New York, NY.  Poster #060

6. The circadian transcriptome in skin is hair growth cycle dependent. Mikhail Geyfman, Qiang Liu, Alexander Ihler, Padhraic Smyth and Bogi Andersen. Irvine, CA.  Poster #473


10. A Japanese case of monilethrix caused by compound heterozygous mutations in the desmoglein 4 (DSG4) gene. Muhammad Farooq, Masaaki Ito and Yutaka Shimomura. Niigata, Japan.  Poster #440

6:45 pm - 7:15 pm  Featured Speaker
Hair follicle stem cells in Androgenetic Alopecia
Luis Garza, MD/PhD
Assistant Professor
Johns Hopkins University, Baltimore, Maryland

7:15 pm - 8:30 pm  Oral Abstract Presentations
2. Pharmacodynamic effects on anagen inhibition after oral administration of the Smoothened inhibitors LDE225 or GDC0449. Frank S Kalthoff, Heinrich Aschauer, Elisabeth Foglar, Liesbeth Mudde-Boer, Nicole Schoefmann, Peter Stuchlik, Anton Stuetz and Barbara Wolff-Winiski. Vienna, Austria. Poster #458
4. Spermidine promotes human hair follicle growth and modulates human epithelial stem cell functions. Yuval Ramot, Stephan Tiede, Tamas Biró, Mohd Hilmi Abu Bakar, Balazs Toth, Michael Philpott, Wesley Harrison, Koji Sugawara and Ralf Paus. Jerusalem, Israel; Lübeck, Germany; Debrecen, Hungary; Kelantan, Malaysia; London, United Kingdom and Manchester, United Kingdom. Poster #431

8:30 pm - 9:30 pm  Business Meeting
Over the past several years, the SID has encouraged meetings between residents and post-doctoral fellows. To promote collegiality, the SID annually presents a Trainee Dinner—small group meetings in which senior and junior scientists and a group of four to six residents and post-doctoral fellows discuss issues over dinner. These sessions provide an opportunity to talk informally about subject matter of interest including research opportunities in dermatology, life in academia or how to combine clinical work with research.
### SATURDAY MEETING-AT-A-GLANCE

**Saturday, May 7, 2011**

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td><strong>SID Board of Directors Meeting</strong></td>
<td>7:00 am - 8:00 am</td>
<td>Desert Suite I</td>
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<tr>
<td><strong>Registration</strong></td>
<td>7:30 am - 12:00 pm</td>
<td>Grand Canyon Foyer 6</td>
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<tr>
<td><strong>American DermatoEpidemiology Network Business/Scientific Session</strong></td>
<td>8:00 am - 12:30 pm</td>
<td>Grand Sonoran A-B</td>
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<td><strong>Plenary Session III</strong></td>
<td>8:00 am - 9:00 am</td>
<td>Grand Sonoran E-F</td>
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<td><strong>William Montagna Lecture</strong></td>
<td>9:00 am - 9:30 am</td>
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<tr>
<td><em>Developing New Therapies for Epidermolysis Bullosa: The Hard Graft</em></td>
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<td>John McGrath, MD</td>
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<td><strong>Julius Stone Lecture</strong></td>
<td>9:30 am - 10:00 am</td>
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<tr>
<td><em>The Interplay of IL-17- and IFNg-producing CD4 T Cells in Immune-mediated Inflammation</em></td>
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<td>Casey Weaver, MD</td>
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<tr>
<td><strong>Clinical Scholars Program</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Grand Sonoran G</td>
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<tr>
<td><strong>Poster Session III/Technical Exhibits Open with Coffee Break</strong></td>
<td>10:00 am - 12:00 pm</td>
<td>Grand Saguaro Ballroom</td>
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<tr>
<td><strong>Concurrent Minisymposia</strong></td>
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<tr>
<td>10. Auto Immunity and Inflammation (Grand Sonoran C-D)</td>
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<td>11. Cell Adhesion/Matrix and Vascular Biology (Wildflower Salon A)</td>
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<td>12. Human Clinical Research and Therapeutics (Grand Sonoran G)</td>
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<td>13. Photobiology (Wildflower C)</td>
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<tr>
<td><strong>Phoenix Dermatologic Society/Arizona Dermatologic Society</strong></td>
<td>2:30 pm - 5:30 pm</td>
<td>Grand Sonoran A-B</td>
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*Indicates CME Credit Offered*

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### ANCILLARY MEETINGS

**Saturday, May 7, 2011**

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**SATURDAY SESSIONS**
ANCILLARY MEETINGS

SUNDAY, MAY 7, 2011

SID Board of Directors Meeting
7:00 am - 8:00 am
Desert Suite I

Meeting Registration
7:30 am - 12:00 pm
Grand Canyon Foyer 6

Phoenix Dermatologic Society / Arizona Dermatologic Society
2:30 pm - 5:30 pm
Grand Sonoran A-B

AMERICAN DERMATOEPIDEMIOLOGY NETWORK BUSINESS/SCIENTIFIC SESSION

Presider: Michael Ming, MD/MSCE and Joel Gelfand, MD/MSCE

Saturday, May 7, 2011
8:00 am - 12:30 pm
Grand Sonoran A - B

OPEN TO ALL MEETING ATTENDEES


5. Cohort findings in genome-wide association study era. Jiali Han and Abrar Qureshi. Boston, MA. 8:48 am, Poster #238

6. Predictors of patient satisfaction in Mohs surgery: Analysis of pre-, intra- and post-operative factors in a large prospective cohort. Maryam M Asgari, E Margaret Warton, Romain Neugebauer and Mary-Margaret Chren. Oakland, CA and San Francisco, CA. 9:00 am, Poster #258

7. Skin aging as a mirror of lung damage. Andrea Vierkoetter, Tamara Schikowski, Dorothee Sugiri, Mary Matsui, Jean Krutmann and Ursula Kraemer. Düsseldorf, Germany; Basel, Switzerland and Melville, NY. 9:12 am, Poster #229


Break

10. Contribution of nodular subtype to overall melanoma mortality. W R Shaikh, M Xiong and M A Weinstock. Providence, RI. 9:54 am, Poster #217


ADEN Business Meeting
OPEN TO ALL MEETING ATTENDEES

1. Maintenance of the epidermal progenitor state requires the long non-coding RNA Linc8D. Cari Lee, Markus Kretz, Daniel Webster, Ross Flockhart, Kun Qu, Angela Mah, Cody Aros, Howard Chang, John Rinn and Paul Khavari. Palo Alto, CA. 8:00 am, Poster #813

2. Ets1 regulates the skin differentiation program by interfering with Notch activity. Shu Shien Chin, Priyadharsini Nagarajan, Dan Wang, Song Liu, Lee Ann Garrett-Sinha and Satrajit Sinha. Buffalo, NY. 8:12 am, Poster #316

3. Myeloid derived suppressor cells (MDSC) express DC-HIL, which is responsible for their potent T cell-inhibitory and melanoma growth-promoting effects. Jin-Sung Chung, Kyoichi Tamura, Rohit R Sharma, Ponciano D Cruz and Kiyoshi Ariizumi. Dallas, TX. 8:24 am, Poster #724

4. Canonical polarity protein PKC iota/lambda regulates Shh signaling during hair follicle and basal cell carcinoma growth. Scott X Atwood, Mischa Li and Anthony E Oro. Stanford, CA. 8:36 am, Poster #088

5. Bath-psoralen UVA and narrow-band UVB reduce circulating Th17 cells and induce circulating regulatory T cells in psoriasis. Takuya Furuhashi, Chiyo Saito, Kan Torii, Emi Nishida and Akimichi Morita. Nagoya, Japan. 8:48 am, Poster #678
DEVELOPING NEW THERAPIES FOR EPIDERMOLYSIS BULLOSA: THE HARD GRAFT

Saturday, May 7, 2011
9:00 am - 9:30 am
Grand Sonoran E - F

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

John McGrath, MD
Kings College London, Guys Hospital
London, United Kingdom

John McGrath is Professor of Molecular Dermatology and head of the Genetic Skin Disease Group at St. John's Institute of Dermatology. Dr. McGrath’s research interests include discovering what causes inherited skin diseases, how these abnormalities disrupt skin structure and function, and what clinician-scientists can do to develop new clinical and therapeutic benefits for people with genetic skin diseases.

LECTURESHP HISTORY

The William Montagna Lecture is given annually at the Society’s Annual Meeting. This award is intended to honor and reward young active investigators. Primary emphasis is given to researchers in skin biology.
JULIUS STONE LECTURE
THE INTERPLAY OF IL-17- AND IFNγ-PRODUCING CD4 CELLS IN IMMUNE-MEDIATED INFLAMMATION

Saturday, May 7, 2011
9:30 am - 10:00 am
Grand Sonoran E - F

OPEN TO ALL MEETING ATTENDEES

LECTURER BIO

Casey Weaver, MD
University of Alabama, Birmingham
Birmingham, Alabama

Dr. Weaver is Professor of Pathology at the University of Alabama, Birmingham. His lab studies the mechanisms that control T cell development during an immune response, using transgenic mouse models and molecular biological approaches to define the signals that control the fate of the T cell and to understand how alternative T cell developmental pathways lead to distinct immune responses.

LECTURESHIP HISTORY

The Julius Stone Lectureship is intended to promote the advancement of knowledge in immunology as it relates to the skin and skin disease. The Lectureship is intended to honor Dr. Julius Stone, whose great commitment to the application of new principles of immunology to the benefit of patients with skin disorders is recognized by this award.

ANCILLARY MEETINGS

SATURDAY, MAY 7, 2011

SID Board of Directors Meeting
7:00 am - 8:00 am
Desert Suite I

Meeting Registration
7:30 am - 12:00 pm
Grand Canyon Foyer 6

Phoenix Dermatologic Society / Arizona Dermatologic Society
2:30 pm - 5:30 pm
Grand Sonoran A-B
DEVELOPING NEW THERAPIES FOR EPIDERMOLYSIS BULLOSA: THE HARD GRAFT

Saturday, May 7, 2011
10:00 am - 12:00 pm
Grand Sonoran G

OPEN ONLY TO CLINICAL SCHOLARS & YOUNG INVESTIGATOR/TRAINEE TRACK PARTICIPANTS

Plenary Presentations

1. Genomewide association study (GWAS) of infantile hemangiomas (IH) 10:00 am, Poster #427
   Presented by Ulrich Broeckel, MD, Associate Professor and Beth Drolet, MD, Professor of Dermatology and Pediatrics, Medical College of Wisconsin, Milwaukee, Wisconsin

2. An investigator-initiated, phase II randomized, double-blind, placebo-controlled trial of GDC-0449 for prevention of BCCs in basal cell nevus syndrome (BCNS) patients. 10:20 am, Poster #549
   Presented by Ervin H. Epstein, MD, Scientist, Children’s Hospital Oakland Research Institute, San Francisco, California

Lectures

Genomewide Association Studies in Dermatologic Diseases
Angela Christiano, PhD
Professor and Vice Chair for Research, Dermatology and Genetics Development
Columbia University, New York, New York

Mechanism-based Therapy using Hedgehog Pathway Inhibitors
Anthony Oro, MD/PhD
Associate Professor, Department of Dermatology
Stanford University, Stanford, California
OPEN TO ALL MEETING ATTENDEES


2. Cytokine aberrations in a mouse model of psoriatic arthritis. Mayuko Yamamoto and Shigetoshi Sano. Nankoku, Japan. 12:42 pm, Poster #011

3. Human TLR7 and TLR8 expressing slan (6-sulfo LacNAc)dendritic cells as a novel proinflammatory cell type in Lupus erythematosus. Anja Hänsel, Claudia Günther, Thomas Döbel, Wojciech Baran and Knut Schäkel. Heidelberg, Germany; Dresden, Germany and Wroclaw, Poland. 12:54 pm, Poster #052

4. Genome-wide expression profiling of five mouse models identifies similarities and differences with human psoriasis. William R Swindell, Andrew Johnston, Steve Carbajal, Gangwen Han, Christian Wohun, Jun Lu, Xiaying Xing, Rajan P Nair, John J Voorhees, James T Elder, Xiao-Jing Wang, Shigetoshi Sano, Errol P Prens, John DiGiovanni, Mark R Pittelkow, Nicole L Ward and Johann E Gudjonsson. Boston, MA; Ann Arbor, MI; Austin, TX; Denver, CO; Rotterdam, Netherlands; Rochester, MN; Okocho, Japan and Cleveland, OH. 1:06 pm, Poster #013

5. Periodontal disease and risk of psoriasis among US women. Sarah Nakib, Jiali Han, Tricia Li and Abrar Qureshi. Minneapolis, MN and Boston, Massachusetts. 1:18 pm, Poster #032

6. IL-17C is overexpressed in psoriasis skin and contributes to cytokine-driven inflammation. Cynthia S Chen, Paul M Al-Attar, Wen Fu, Candace M Loyd, Marybeth Riblett, Xianying Xing, John J Voorhees, James T Elder, Nicole L Ward, Johann E Gudjonsson and Andrew Johnston. Ann Arbor, MI and Cleveland, OH. 1:30 pm, Poster #027

7. Soluble adenylyl cyclase is necessary for IL-22-dependent keratinocyte proliferation. Archana Vishwanath, Lonny Levin, Jochen Buck and Jonathan Zippin. New York, NY. 1:42 pm, Poster #081

8. NF-kB blockade reduces hair follicle NKG2D ligand expression and susceptibility to lymphocyte attack revealing a novel therapeutic approach for alopexia areata. Matthew S Hayden, Teruki Dainichi, Pallavi Singh, Yutaka Shimomura, Raphael Clynes, Angela M Christiano and Sankar Ghosh. New York, NY. 1:54 pm, Poster #059

9. TWEAKing the inflammatory cascade: The TWEAK/Fn14 pathway as a potential therapeutic target for cutaneous lupus. Karin Blecher, Adam Friedman, Jing Wen, Yumin Xia, Jennifer Michaelson, Linda Burkly and Chaim Putterman. Bronx, NY and Cambridge, MA. 2:06 pm, Poster #003
10. Dissecting the inflammatory skin lesions in NOMID and the resulting homeostatic tissue responses in the context of IL-1 blocking therapy. Pamela Aubert, Mayte Suárez-Fariñas, Hiroshi Mitsui, Leanne M Johnson-Huang, Katherine Pierson, Joseph G Dolan, Inna Novitskaya, Israel Coats, James G Krueger, Jacob Estes, Edward Cowen, Nicole Plass, Chyi-Chia Lee, Hong-Wei Sun, Michelle A Lowes and Raphaela Goldbach-Mansky. Bethesda, MD; New York, NY and Frederick, MD. 2:18 pm, Poster #045


12. Early tissue responses in psoriasis to the anti-TNF-α biologic etanercept suggest reduced IL-17R expression and signaling. Andrew M Guzman, Andrew Johnston, Xiangying Xing, Lisa Maier, Frank Wang, Sewon Kang, Gary Fisher and Johann E Gudjonsson. Ann Arbor, MI and Baltimore, MD. 2:42 pm, Poster #026

13. Lymphangiogenic process in the Keratin-14-IL-4-transgenic mouse model of atopic dermatitis parallels the evolution of skin inflammation. Vivian Y Shi, Lei Bao, Huayi Zhang, John R Tian, Rui Zhu and Lawrence S Chan. Chicago, IL. 2:54 pm, Poster #021

14. Erlotinib-stimulated epidermal hyperplasia is mediated by IL-1. Nicole L Ward, Narasimharao Bhagavathula, C M Loyd, S Dawes, Andrew Johnston, James Varani and James T Elder. Ann Arbor, MI and Cleveland, OH. 3:06 pm, Poster #025

3.5 CME CREDITS

CONCURRENT MINISYMPOSIUM 11
CELL ADHESION / MATRIX AND VASCULAR BIOLOGY

Presiders: Spiro Getsios, PhD and Jeffrey Davidson, PhD

Saturday, May 7, 2011
12:30 pm - 4:00 pm
Wildflower Salon A

OPEN TO ALL MEETING ATTENDEES

1. Loss of type VII collagen in squamous cell carcinoma leads to increased invasion and TGF-beta signalling in vivo. Vera Martins, Kate Moore, Mei Chen, John Marshall and Edel A O’Toole. London, United Kingdom and Los Angeles, CA. 12:30 pm, Poster #196

2. Elucidation of the molecular mechanisms underlying inversa type of recessive dystrophic epidermolysis bullosa using site-directed mutagenesis. Y Hou, J Cogan, E Cua, S Lee, D Woodley and M Chen. Los Angeles, CA. 12:42 pm, Poster #194

3. Fibronectin is a negative regulator of keratinocyte migration. Kevin J Hamill, Susan B Hopkinson, Paul Hoover, Viktor Todorovic, Kathleen J Green and Jonathan C Jones. Chicago, IL. 12:54 pm, Poster #199

4. MtDNA changes alter murine fibroblasts migration and invasiveness by inducing the expression of the matrix metalloproteinase 9 (MMP-9), an effect mediated by NF-κB. Jaroslav Janda, Jana Jandova and James E Sligh. Tucson, AZ. 1:06 pm, Poster #203

5. Expression of catalytically active Matrix Metalloproteinase-1 in dermal fibroblasts induces morphological and functional alterations that mimic aged human skin. Wei Xia, Craig Hammerberg, Yong Li, John J Voorhees and Gary J Fisher. Ann Arbor, MI. 1:18 pm, Poster #197

6. Elevated Cysteine-rich protein 61 (CYR61/CCN1) mediates down-regulation of collagen expression in senescent human dermal fibroblasts. Taihao Quan, Zhaoping Qin, Tianyuan He, John J Voorhees and Gary J Fisher. Ann Arbor, MI. 1:30 pm, Poster #198


8. Desmosomal cadherins utilize distinct mechanism for assembly into desmosomes. Oxana Nekrasova, E Amargo and K J Green. Chicago, IL. 1:54 pm, Poster #182

9. Antagonizing the effects of pemphigus IgG by manipulating intracellular protein O-glycosylation. Paula Berkowitz and David Rubenstein. Chapel Hill, NC. 2:06 pm, Poster #192


11. The DSPII splice variant is critical for desmosome-mediated HaCaT keratinocyte adhesion. Rita M Cabral, Daniel Tattersall, Vishal Patel, Elizabeth Hatzimasoura, Dominic J Abrams, Andrew P South and David P Kelsell. London, United Kingdom and Dundee, United Kingdom. 2:30 pm, Poster #176
12. MMP2-null mice are less susceptible to pemphigus foliaceus induction. Ning Li, Zhi Liu, Lisa Heinbach, Moonhee Park, Robert Senior and Luis A Diaz. Chapel Hill, NC and St. Louis, MO. 2:42 pm, Poster #193


15. Ectodomain shedding of LYVE-1 in psoriasis: VEGF-A induces the biochemical cleavage in lymphatic vessels. Satoshi Hirakawa, Hisayo Nishida-Fukuda, Ryoichi Araki, Xiuju Dai, Yasushi Hanakawa, Koji Sayama, Yuji Shirakata, Mikiko Tohyama, Michael Detmar, Koji Hashimoto, Shigeki Higashiyama and Yoshiki Tokura. Hamamatsu, Japan; Toon, Japan and Zurich, Switzerland. 3:18 pm, Poster #181
1. Blood involvement in stage IA mycosis fungoides by flow cytometry predicts or is associated with higher rate of progression. Rakhshandra Talpur, Lotika Singh, Amishi Shah, Seema Daulat, Ping Liu and Madeleine Duvic. Houston, TX. 12:30 pm, Poster #526

2. Pralatrexate selectively induces apoptosis and synergizes with bexarotene through up-regulation of p53/Bax/PUMA in cutaneous T-cell lymphoma cells. Sophia Rangwala, Xiang Zhang, Chunlei Zhang and Madeleine Duvic. Houston, TX. 12:42 pm, Poster #479

3. Antagonism of p40 cytokines in psoriasis patients may promote paradoxical cardiovascular risk. Caitriona Ryan, Craig Leonard, James Krueger, Alexa Kimball, Bruce Strober, Kenneth Gordon, Richard Langley, Daniel Kaplan and Alan Menter. Dallas, TX; Saint Louis, MO; New York, NY; Boston, MA; Chicago, IL; Halifax, Canada and Minneapolis, MN. 12:54 pm, Poster #493

4. The histone deacetylase inhibitor, romidepsin, suppresses in vivo immune functions of cutaneous T-cell lymphoma patients. Michael J Kelly-Sell, Bernice Benoit, Youn H Kim, Cameron Harrison, Katherine Sutherland, Louise C Showe, Maria Wysocka and Alain H Rook. Philadelphia, PA and Palo Alto, CA. 1:06 pm, Poster #520


6. A pilot study of an oral phosphodiesterase inhibitor (apremilast) for atopic dermatitis. Aman Samrao, Trista Berry and Eric Simpson. Portland, OR. 1:30 pm, Poster #492


8. ANA and anti-dsDNA in patients under treatment with Infliximab — A potential predictor for non-response to infliximab. Jochen Hoffmann, Martin Hartmann, Alexander H Enk and Eva N Hadaschik. Heidelberg, Germany. 1:54 pm, Poster #502


10. Early rituximab therapy of autoimmune blistering disease is associated with better clinical response. Luisa Lunardon, Kathleen J Tsai, Nicole Fett, John R Stanley, Donald E Tsai, Victoria P Werth and Aimee S Payne. Philadelphia, PA. 2:18 pm, Poster #545
11. Reversal of local immune evasion mechanisms and regression of human Merkel cell carcinoma by intrallesional injection of interferon-beta. Kelly Paulson, Andrew Tegeder, Cristoff Willmes, Jayasri Iyer, David Schrama, David Koelle, Michele Cleary, Shailender Bhatia, Jürgen Becker and Paul Nghiem. Seattle, WA; North Wales, PA and Graz, Austria. 2:30 pm, Poster #547


15. T cells in the skin lesions of stage I mycosis fungoides show markedly suppressed cytokine production. Rei Watanabe, Marianne Tawa, Natalie Adams, Andrew Dorosario, David C Fisher, Thomas S Kupper and Rachael A Clark. Boston, MA. 3:18 pm, Poster #534
Concurrent Minisymposium 13
Photobiology

Presiders: Thomas Ruenger, MD/PhD and Alice Pentland, MD

Saturday, May 7, 2011
12:30 pm - 4:00 pm
Wildflower Salon C

Open to all meeting attendees

1. Silymarin inhibits UV-induced immunosuppression through inactivation of CD4+ T cells and stimulation of CD8+ effector T cells. Mudit Vaid, Tripti Singh and Santosh K Katiyar. Birmingham, AL. 12:30 pm, Poster #672

2. Sunscreens may prevent UV-induced facial fat loss by blocking the production of IL-11. Wen-Hwa Li, Apostolos Pappas, Li Zhang and Druie Cavender. Skillman, NJ. 12:42 pm, Poster #658

3. The aryl hydrocarbon receptor (AhR) is a negative regulator of nucleotide excision repair (NER). Thomas Haarmann-Stemmann, Katrin Frauenstein, Thierry Douki, Marc Majora, Julia Tigges, Susanne Grether-Beck, Charlotte Esser, Josef Abel, Ellen Fritsche and Jean Krutmann. Düsseldorf, Germany; Grenoble, France and Aachen, Germany. 12:54 pm, Poster #679


5. Novel oxidatively-modified glycerophosphocholines with platelet-activating factor activity mediate UVB photosensitivity in xeroderma pigmentosum A deficiency. Jeffrey B Travers, Katheen A Harrison, Robert C Murphy and Raymond L Konger. Indianapolis, IN and Aurora, CO. 1:18 pm, Poster #688

6. Ultraviolet B radiation augments melanoma tumor growth through its ability to generate platelet-activating factor agonists. Ravi P Sahu, Sonia Da Silva, Christopher Touloukian, Raymond L Konger and Jeffrey B Travers. Indianapolis, IN. 1:30 pm, Poster #687

7. UVB suppresses PTEN expression by upregulating miR-141 in HaCaT cells. Wei Li, Bingrong Zhou and Dan Luo. Nanjing, China. 1:42 pm, Poster #673


9. Solar ultraviolet irradiation induced decorin degradation renders type I collagen susceptible to cleavage by matrix metalloproteinase-1 in human skin. Yong Li, Wei Xia, Ying Liu, Yuan Shao, John J Voorhees and Gary J Fisher. Ann Arbor, MI. 2:06 pm, Poster #691


11. Molecular effects of fractional laser on photo-aged skin. Paul C Jou, Autumn Potaracke, Minh Lam, Elma D Baron and Jose Garcia-Zuazaga. Cleveland, OH. 2:30 pm, Poster #670
12. **Cysteine-rich Protein 61 (CCN1) mediates upregulation of IL-1β by UV irradiation in human skin fibroblasts.** Zhaoping Qin, John J Voorhees, Gary J Fisher and Taihao Quan. Ann Arbor, MI. 2:42 pm, Poster #693

13. **UV modulation of subcutaneous fat metabolism.** Eun Ju Kim, Yeon Kyung Kim, Ji Eun Kim, Sojeong Kim, Min-Kyoung Kim, Chi-Hyun Park and Jin Ho Chung. Seoul, South Korea. 2:54 pm, Poster #680

14. **Modification of microRNA expression by baicalin in UVB irradiated mouse skin using a microRNA microarray.** Dan Luo and Bingrong Zhou. Nanjing, China. 3:06 pm, Poster #674

15. **Photoprotection against UVAR: Naturally occurring actives require a chemical structure that confers cell membrane lipid raft stabilizing properties.** Mirko Bayer, Peter Proksch, Ingo Felsner, Heidi Brenden, Zippora Kohne, Rehab Walli, Tu Ngoc Duong, Jean Krutmann and Susanne Grether-Beck. Duesseldorf, Germany; Hilden, Germany and Hanoi, Viet Nam. 3:18 pm, Poster #682
<table>
<thead>
<tr>
<th>Page</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>93</td>
<td>Abstract Presentation Information</td>
</tr>
<tr>
<td>94</td>
<td>Auto-immunity &amp; Inflammation</td>
</tr>
<tr>
<td>96</td>
<td>Carcinogenesis &amp; Cancer Genetics</td>
</tr>
<tr>
<td>99</td>
<td>Cell Adhesion / Matrix and Vascular Biology</td>
</tr>
<tr>
<td>100</td>
<td>Epidemiology / Health Services Research</td>
</tr>
<tr>
<td>102</td>
<td>Epidermal Structure &amp; Function</td>
</tr>
<tr>
<td>105</td>
<td>Genetic Disease, Gene Regulation &amp; Gene Therapy</td>
</tr>
<tr>
<td>107</td>
<td>Hair &amp; Cutaneous Development</td>
</tr>
<tr>
<td>108</td>
<td>Human Clinical Research &amp; Therapeutics</td>
</tr>
<tr>
<td>110</td>
<td>Immunology 1: Adaptive Immunity</td>
</tr>
<tr>
<td>112</td>
<td>Immunology 2: Innate Immunity &amp; Microbiology</td>
</tr>
<tr>
<td>113</td>
<td>Photobiology</td>
</tr>
<tr>
<td>115</td>
<td>Pigmentation &amp; Melanoma</td>
</tr>
<tr>
<td>117</td>
<td>Tissue Regeneration, Stem Cells &amp; Wound Healing</td>
</tr>
<tr>
<td>120</td>
<td>Keyword Index</td>
</tr>
<tr>
<td>126</td>
<td>Author Index</td>
</tr>
<tr>
<td>154</td>
<td>SID Governance</td>
</tr>
</tbody>
</table>
Oral Presentations
Oral presentations and lectures will take place at the JW Marriott Desert Ridge Resort and Spa. Minisymposium and Plenary oral presentations are scheduled at the rate of five per hour. This allows ten minutes for presentation and two minutes for discussion. In order to coordinate sessions, the time limit will be strictly enforced, and you will be asked to terminate your presentation by the session chairperson.

LCD projectors will be available in each lecture hall. There will be resources to display only with IBM-compatible PowerPoint XP and Windows XP or earlier versions. 35mm projectors will not be available. Computer technicians will be able to download ZIP and CD files. All oral presentations must also be presented in poster format.

All presentations must be uploaded to a common storage device at least six (6) hours prior to your presentation. Uploads may be completed in the Speaker Ready Room (Tuesday - Friday in Grand Canyon 3; Saturday in Grand Sonoran J).

Conflict of Interest
If there is a real or perceived conflict of interest pertaining to your work, an announcement must be made prior to your oral presentation or be displayed on your poster. For oral presentations, we suggest using a slide to indicate the conflict.

Speaker Ready Room
Tuesday through Thursday, Grand Canyon 3 will be available to all presenters. On Saturday, Grand Sonoran J will be available to presenters.

Wednesday, May 4, 2011  7:00 am – 8:00 pm
Thursday, May 5, 2011  7:00 am – 5:00 pm
Friday, May 6, 2011  7:00 am – 5:00 pm
Saturday, May 7, 2011  7:00 am – 3:00 pm

Keyword Index
The keyword index is located on pages 120-125 and appears in the April issue of the Journal of Investigative Dermatology (JID).

Poster Presentations
All posters will be displayed until Saturday, May 7 at 12:00 p.m. in the Grand Saguaro Ballroom. Posters will be viewed in three sessions as outlined below. Presenters should be at their posters for the entire discussion session. Posters must be displayed until 12:00 p.m. on Saturday, May 7. Posters may not be removed early. The SID is not responsible for posters left unclaimed as of 6:00 p.m. on Saturday, May 7. Unclaimed posters will not be returned.

Install All Posters
Wednesday, May 4, 2011  •  8:00 am - 4:00 pm

Poster Session I
Odd poster numbers 001-281 & Even poster numbers 282-562
Thursday, May 5, 2011 • 10:00 am - 12:00 pm

Poster Session II
Even Poster numbers 002-280 & Odd Poster numbers 563-845
Friday, May 6, 2011 • 11:15 am - 1:15 pm

Poster Session III
Odd Poster numbers 283-565 & Even Poster numbers 564-844
Saturday, May 7, 2011 • 10:00 am - 12:00 pm

Dismantle All Posters
Saturday, May 7, 2011 • 12:15 pm - 6:00 pm
Auto-immunity and Inflammation

All oral sessions listed below are presented in the Auto-immunity and Inflammation Minisymposium on Saturday, May 7, 2011 from 12:30-4:00 p.m. in Grand Sonoran C-D, JW Marriott Desert Ridge. Oral sessions designated by two asterisks (**) will be presented during a Plenary Session.

001 CD109 function in human keratinocytes is linked to a psoriasis-like phenotype. Ivan V Litvinov, Albane A Bizeret, Yousef Binamer, David A Jones, Deis Sasseville and Anie Philippe. Montreal, Canada and Boston, MA.

002 Small S100 molecules from the psoriasis susceptibility locus (PSORS4) prime the skin for inflammation. Ronald Wolf, Francesca Mascia, Christophe Catiax, Alif Dharmasi, Zack Howard, Val Bliskovski, Jason Winston, Lionel Feigenbaum, Ulrike Lichtt, Thomas Ruzicka, Triantafyllos Chavakis and Stuart H Yuspia. Bethesda, MD; Frederick, MD; Munich, Germany and Dresden, Germany.

003* TWEAKing the inflammatory cascade: The TWEAK/Fn14 pathway as a potential therapeutic target for cutaneous lupus. Karin Blecher, Adam Friedman, Jing Wen, Yumin Xia, Jennifer Michaelson, Linda Burky and Chaim Putterman. Bronx, NY and Cambridge, MA.


005 Enforced RORyt expression in haematopoietic stem cells increases regulatory T cell number, which reduces immunoreactivity and attenuates hypersensitivity in vivo. Yasuhiro Fujisawa, Yasuhiro Kawachi, Yousuke Ishitsuka and Fujio Otsuka. Tsukuba, Japan.


007 IL-33 is produced by normal human keratinocytes with environmental and inflammatory stimuli: A novel "alarmin" in the skin. Atlada Meepphasan, Mayumi Komine, Hidetoshi Tsuda, Shoichiro Yano, Shin-ichi Tominaga and Mamitaro Ohtsuki. Shimotsuke, Japan and Ohtawara, Japan.


009 Cutaneous expression of neutrophil elastase in relation to IgA autoantibodies to nonapeptides of gliadin and tissue transglutaminase in dermatitis herpetiformis. Mariam Dimochowska, Justyna Gornowicz, Agnieszka Seraszek, Elzbieta Kaczmarek and Monika Bowszycz-Dmochowska. Poznan, Poland.

010 Epidermal ablation of Di3k is linked to barrier disruption and skin inflammation. Jun Sumgung Hwang, Ryosuke Kita, Hyouk-Soo Kwon, Eung Ho Choi, Seung Hun Lee, MarkC Udey and Marial Morasso. Bethesda, MD; Wonju, South Korea and Seoul, South Korea.


012 Involvement of the CXCL10/CXCR3 axis in the mechanism responsible for cutaneous reverse passive Arthus reaction. Shiniiji Noda, Yoshihide Asano, Yayoi Tada, Makoto Sugaya, Takafumi Kadono and Shinichi Sato. Tokyo, Japan.

013* Genome-wide expression profiling of five mouse models identifies similarities and differences with human psoriasis. William R Swindell, Andrew Johnston, Steve Carabajal, Gangwen Han, Christian Wohm, Jun Lu, Xianying Xing, Rajan P Nair, John J Voorhees, James T Elder, Xiao-Jing Wang, Shigetoshi Sano, Errol P Prens, John DiGiovanni, Mark R Pittelkow, Nicole L Ward and Johann E Gudjonsson. Boston, MA; Ann Arbor, MI; Austin, TX; Denver, CO; Rotterdam, Netherlands; Rochester, MN; Okocho, Japan and Cleveland, OH.

014 Identification of IL-4 regulated keratinocyte genes relevant in the pathogenesis of atopic dermatitis. Lei Bao and Lawrence S Chan. Chicago, IL.

015 Anti-inflammatory activity of water chestnut (Trapa japonica Flerov). Jin Eun Kim, Su Min Lee, Myoung Jin Oh, Bora Kim, Hyuk Kim, Byung-Kook Choi and Joo Dong Lee. Incheon, South Korea and Yongin, South Korea.

016 Dermal-type macrophages can be integrated into a collagen-fibroblast scaffold. Nicolas Bechetteille, Hortense Vachon, Thomas Fontaine, Valérie André-Frei and Christophe Mueller. Lyon, France and Strasbourg, France.

017 Clinical and laboratory markers of sclerotic-type chronic graft versus host disease. Kathryn Martínez, Kristin Baird, Seth M Steinberg, Lana Grkovic, Kirsten Williams, Fran Hakim, Steven Z Pavletic and Edward W Cowen. Bethesda, MD.

018 Role of IL-13 in the cytokine network of psoriasis. MaryBeth Riblett, Xianying Xing, James Kochkodan, Andrew M Guzman, John J Voorhees, Andrew Johnston and Johann E Gudjonsson. Ann Arbor, MI.


020 MHC class II restricted CD4+ T lymphocytes directed against melanocyte antigens: Tyrosinase, Tyrosinase Related Protein 2 and MART-1 in Vitiligo. Archana Singh, Pankaj Sharma, Hemant K Kar, Manoj K Tembhre, Somesh Gupta, V K Sharma, Rajesh S Gokhale and Rajni Rani. New Delhi, India.

021* Lymphangiogenic process in the Keratin-14-IL-4-transgenic mouse model of atopic dermatitis parallels the evolution of skin inflammation. Vivian Y Shi, Lei Bao, Huayi Zhang, JohnR Tian, Rui Zhu and Lawrences Chan. Chicago, IL.


023 Alopecia areata development may be associated with cardiac fibrosis. Eddy H Wang, Kayt Chong, David Granville, Jerry Shapiro and Kevin J McElwee. Vancouver, Canada.

024 Comprehensive characterization of leukocyte subsets in the blood of psoriasis patients. Gerlinde Obermoser, Caitriona Ryan, Jacques Banchereau, Virginia Pascual, Damien Chaussebel and Alan Menter. Dallas, TX and Innsbruck, Austria.

025* Erlotinib-stimulated epidermal hyperplasia is mediated by IL-21 in T cells.糟子 翔子, 冨田詠美, 金井公, 福田敏, Yosuke Ishitsuka and Fujio Otsuka. Tsukuba, Japan.

026 Early tissue responses in psoriasis to the anti-TNF-α biologic etanercept suggest reduced IL-17R expression and signaling. Andrew M Guzman, Andrew Johnston, Xianying Xing, Lisa Maier, Frank Wang, Sewon Kang, Gary Fisher and Johann E Gudjonsson. Ann Arbor, MI and Baltimore, MD.

027* IL-17C is overexpressed in psoriasis skin and contributes to cytokine-driven inflammation. Cynthia S Chen, Paul M Al-Attar, Wen Fu, Candace M Loyd, Marybeth Riblett, Xianying Xing, John J Voorhees, James T Elder, Nicole L Ward, Johann E Gudjonsson and Andrew Johnston. Ann Arbor, MI and Cleveland, OH.

028 Oxazolone induced atopic dermatitis murine model may be useful to screen TSLP inhibitors. Na Young Yoon, Minyoung Jung, Donghye Kim, Hae-Jin Lee and Eung Ho Choi. Wonju, South Korea and Yanggu, South Korea.
029 Primary ceramide deficiency in keratinocytes leads to gene alterations linked to dermatitis. Kimiko Nakajima, Mikako Terao, Hiroaki Azukizawa, Ichiro Katayama, Junji Takeda and Shigetoshi Sano. Kochi, Japan and Osaka, Japan.

030 Effect of norepinephrine (NE) on lipopolysaccharide (LPS) induction of cytokine/chemokine expression by murine bone marrow (BM)-derived dendritic cells (DCs). Loni L Stohl, Michela Manni, Wahnon Ding and Richard D Granstein. New York, NY.


033 Complement activation in dermatomyositis and polymyositis: Complementing or challenging cell-mediated pathogenesis? Maria J Molnar, Patrick Dupuy and Milan Basta. Budapest, Hungary; Toulouse, France and Potomac, MD.

034 TRAF3IP2 couples IL-17 to the epidermal defense response. Sylviane Lambert, Stefan W Stoll and James T Eldor. Ann Arbor, MI.

035 Mast cell chymase plays a critical role in bullous pemphigoid in mice. Lan Lin, Eric Bankaitis, Ning Li, Magnus Abrink, Gunnar Pejler, Luis Diaz, Zena Werb and Zhi Liu. Chapel Hill, NC; Uppsala, Sweden and San Francisco, CA.

036 A mouse model of the cytokine storm: inhibiting IFN-γ or TNF-α blocks a lethal response. Emily Nelson, Fumi Miyagawa, Howard A Young, Della Reynolds, Jay Linton, Jan Gutermuth and Stepheni Katz. Bethesda, MD.

037 The role of Syndecan 1 and Syndecan 4 in the severity of murine contact hypersensitivity. Johannes Bühligen, Frank Echtermeyer, Martin Götte, Marco Averbeck and Jan C Simon. Leipzig, Germany and Münster, Germany.

038 Up-regulation of cathepsin S by IL-23 may contribute to itching in psoriasis. Youping Sun, Sarina B Elmariah, Vemuri B Reddy and Ethan A Lerner. Charleston, MA.

039** Type IV collagen binding-site within type VII collagen is a pathogenic epitope for EBA autoantibodies. X. Wang, R. Gupte, A. Garlapati, J. Cogan, D. Woodley and M. Chen. Los Angeles, CA.

040 The mechanism by which cathepsin S triggers receptor activation to cause itch. Vemuri B Reddy, Sarina B Elmariah, Youping Sun and Ethan A Lerner. Charleston, MA.


042 Self-reported environmental triggers associated with onset of alopecia areata. Kerri Fernandes, Angela M Christiano, Maria Hordinsky, Vera Price, David Norris, Joyce Osei, Chris Amos and Madeleine Duvic. Houston, TX; New York, NY; Minneapolis, MN; San Francisco, CA and Denver, CO.

043 Eosinophils express the high affinity IgE receptor (FceRI) in bullous pemphigoid. Alexandra S Frydman, Kelly A Messingham and Janet A Fairley. Iowa City, IA and New York, NY.

044 CD11c+ CD45RO+ cells colocalize with Extra Domain A fibronectin, not S100A8/A9 in human psoriasis. Myriam E Rodriguez, Andrew B Young and Kevin D Cooper. Cleveland, OH.

045* Dissecting the inflammatory skin lesions in NOMID and the resulting homeostatic tissue responses in the context of IL-1 blocking therapy. Pamela Aubert, Mayte Suárez-Fariñas, Hiroshi Mitsui, Leanne M Johnson-Huang, Katherine Pierson, Joseph G Dolan, Inna Novitskaya, Israel Coats, James G Krueger, Jacob Estes, Edward Cowen, Nicole Plass, Chyi-Chia Lee, Hong-Wei Sun, Michelle A Lowes and Raphaela Goldbach-Mansky. Bethesda, MD; New York, NY and Frederick, MD.

046 Collagen XVII (BP180) functions in regulating the keratinocyte pro-inflammatory response. Steven L Elliasion, Françoise Van den Bergh, Brian T Burmeister and George J Giudice. Iowa City, IA and Milwaukee, WI.


051 Anti-inflammatory activity of NPS-1577, PAR-2 specific antagonist, on oxazolone-induced chronic dermatitis animal model. Se Kyo Jeong, Dae-Yon Lee, Hyung Jun Kim, Jeong Eun Jeon, Jong Hwan Bae, Hyung Sub Gwak, Dong Yun Yun, Hyang Sook Lee, Sang Eun Lee and Seung Hun Lee. Daejeon, South Korea and Seoul, South Korea.

052* Human TLR7 and TLR8 expressing slan (6-sulfo LacNAc)dendritic cells as a novel proinflammatory cell type in Lupus erythematosus. Anja Hänsel, Claudia Günther, Thomas Döbel, Wojciech Baran and Knut Schäkel. Heidelberg, Germany; Dresden, Germany and Wrocław, Poland.

053 Fc gammaR IV is crucial for neutrophil effector function in experimental epidermolysis bullosa acquista. Michael Kasperkiewicz, Sabina Wende, Falk Nimmerjahn, Misa Hirose, Hiroaki Iwata, Katherin Kelies, Enno Schmidt, Jürgen Westermann, Jörn Köhl, Detlef Zillickens and Ralf Ludwig. Lübeck, Germany and Erlangen, Germany.


055 Immature slan (6-sulfo LacNAc) dendritic cells display a unique capacity of Fc gamma RIII-mediated immune complex binding which is controlled by ADAM10 and ADAM17. Thomas Döbel, Anja Hänsel and Knut Schäkel. Heidelberg, Germany.

056 Low serum BAFF response and increased IgD_ B cell recovery predict clinical flares in bullous pemphigoid(BP)patients treated with rituximab. Kim Edhagard, Arash Ronaghy, Robert D Streilein, Deborah Hannah, Marc Levesque and Russell P Hall. Durham, NC and Pittsburgh, PA.


058 Differences in epitopes of non-pathogenic autoantibodies to desmoglein1 in pemphigus foliaceus in comparison with those in pemphigus vulgaris and rheumatoid arthritis. Yumi Aoyama, Koji Kamiya, Osamu Yamasaki, Yoshinori Shirafuji, Toshihiko Hamada, Shim Morizane, Kazuyasu Fuji, Akihara Kubo and Keiji Iwatsuki. Okayama, Japan and Tokyo, Japan.

059* NF-κB blockade reduces hair follicle NKG2D ligand expression and susceptibility to lymphocyte attack revealing a novel therapeutic approach for alopecia areata. Matthew S Hayden, Teruki Dainichi, Pallavi Singh, Yutaka Shimomura, Raphael Clynnes, Angela M Christiano and Sarkar Ghosh. New York, NY.

060 Murine alopecia areata immunopathogenesis is dominated by NKG2D positive CD8 T cells and NKG2D blockade protects hair follicles from cytotoxic attack. Luzhou Xing, Pallavi Singh, Claire Higgins, Sivan Harel, AngelaM Christiano and Raphael Clynnes. New York, NY.

062 Pemphigus vulgaris (PV) antibodies target PERP and several other keratinocyte membrane and mitochondrial proteins. **M Kalantar-Dehagh**, G J Anhalt, M J Camilleri, K M Leiferman, S Marchenko, M R Pittelkow, J J Zone and S A Grando. Irvine, CA; Baltimore, MD; Rochester, MN and Salt Lake City, UT.

063 Myeloid cells, and not T cells, are the main source of TNF-a in plaque-type psoriasis. **Patrick M Brunner**, Frieder Koszik, Madeleine Kalb, Baerbel Reininger, Irene Klein and Georg Stingl. Vienna, Austria.


065 Blockade of the IL-17R with AMG 827 leads to rapid reversal of gene expression and histopathological abnormalities in psoriatic skin, including substantial pathway-specific effects within one week. **Chris B Russell**, Keith Kerkof, Jeannette Bigler, Martin Timour, Andrew A Welcher, Edgar Bautista, Inna Cueto, Artemis Khatcharian, James G Krueger, Hugh Rand and David A Martin. Seattle, WA and New York, NY.

066 Withdrawn.


068 Cytokine-specific gene expression signatures identify high signaling by IL-17, TNF and IFN in lesional psoriatic skin and frequent underlying IL-17 signaling in non-lesional psoriatic skin. **Hugh Rand**, Keith Kerkof, Jeannette Bigler, Martin Timour, Andrew Welcher, Yu Zhang, Jennifer Towne, David A Martin and Chris B Russell. Seattle, WA.

069 Mechanistic studies on novel anti-inflammatory molecule used in the treatment of facial redness. **Sujatha Sonti**, Rahul Mehta and Robert Holtz. Carlsbad, CA and Lakewood, CO.

070 IgA and IgE anti-basement membrane antibodies together cause greater inflammatory combination product. **Linda A Schmidt**, Christopher M Hull and John J Zone. Salt Lake City, UT.


072 Perils of polypharmacy: Combination of statin and rosiglitazone during hair follicle and basal cell carcinoma growth. **Jessica E Teague**, Rei Watanabe, Mitra Dowlatshahi, Thomas S Kupper and Rachael A Clark. Boston, MA.


074 Comparing the effects of 9-cis UAB30, a novel renoid, and beaxortene on the rates of proliferation and apoptosis in human cutaneous T-cell lymphoma cell lines. **Zoe Verney**, Venkatram Attigada, Craig Elmetz, Donald Muccio, Clinton Grubbs and Pi-Ling Chang. Birmingham, AL.

075 The PPARy paradox: Cellular mechanism regulating hyper-inflammatory macrophage generation. **Julie Rosenjick**, Bryan W Doreian, Martha Cathcart, Royl Silverstein, Kevin D Cooper and Kurt Q Lu. Cleveland, OH.

076 Histone deacetylase activity is required for skin Langerhans cell homeostasis and function. **Rui-Qun Qi**, Min Liu, Xing-Hua Gao, Hong-Duo Chen, Li Zhou and Qing Sheng Mi. Detroit, MI and Shenyang, China.


079 Sterol intermediates of cholesterol biosynthesis trigger an innate immune response in hair follicle cells and in cicatrical alopecia. **Taneeta Ganguly**, Sreejith P Panicker, Mary C Consolo, Ali A Lattif, Kord Honda and Prattima Karnik. Cleveland, OH.

080 The antidesmosomal autoantibody profile in fogo selvagem supports epidero spreading in disease pathogenesis. **Gustavo Flores, Donna A Culbon**, Bahjat Qaqish, Mike Maldonado, Phillip Prisayanh, Kirk James, Valeria Aoki, Gunter Hans, Evandro Rivitti and Luis A Diaz. Chapel Hill, NC; Sao Paulo, Brazil and Campo Grande, Brazil.

081* Soluble adenyly cyclase is necessary for IL-22-dependent keratinocyte proliferation. **Archana Vishwanath**, Lonny Levin, Jochen Buck and Jonathan Zippin. New York, NY.

082 Involvement of the EGFR in pemphigus vulgaris — an *in vitro* internalization study. **Miriam M Nordling-David**, Marina Frusci-Zlotkin, Beno Michel and Yoram Milner. Jerusalem, Israel and Cleveland, OH.

083 Spontaneous resolution of a unilisease primary cutaneous CD8+ CD30+ lymphoproliferative disorder. **Sean W Carlson**, Cynthia M Magro, Pierluigi Porcu and Henry K Wong. Columbus, OH and New York, NY.

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**Carcinogenesis and Cancer Genetics**

All orals [designated with an asterisk (*)] listed below are presented in the Carcinogenesis and Cancer Genetics Minisymposium on Friday, May 6, 2011 from 2:00-5:30 p.m. in Grand Canyon 11-12. Orals designated by two asterisks (**) will be presented during a Plenary Session.

084 Milk phospholipid’s protective effects against UV damage in skin equivalent models. **Zyra Achay**, Carl Dargitz, Michael Bingham, Elena Keeling and Lily Laiho. San Luis Obispo, CA.


086* The deacetylase SIRT1 regulates global genome nucleotide excision repair. **Mei Ming**, Christopher R Shea, Xiuxi Guo, Xiaoling Li, Keyoumars Soltani, Weinong Han and Yu-Ying He. Chicago, IL and Research Triangle Park, NC.

087 Egln/PHD proteins and their role in control of hypoxia pathway in epidermal keratinocytes. **L Wein**, D. Robertson, I M Leigh and A A Panteleyev. Dundee, United Kingdom.

088** Canonical polarity protein PKC iota/lambda regulates Shh signaling during hair follicle and basal cell carcinoma growth. **Scott X Atwood**, Mischa Li and Anthony E Oro. Stanford, CA.

089 Cell cycle mediates global DNA methylation in normal human keratinocytes. **John Wille** and Jong Y Park. Chesterfield, NJ and Tampa, FL.


092* Tumor derived nitric oxide suppresses the expression of CXCL10 and leads to the poor outcome of Stage III melanoma. **Keiji Tanese**, Elizabeth Grimm and Suhendak Emmekocioglu. Houston, TX and Tokyo, Japan.

093* Reprogramming genes for induced pluripotent stem cells (iPSCs) reversed changes associated with epithelial-to-mesenchymal transition of skin cancer cells. **Mikiko Takaishi**, Maki Yokogawa, Junji Takeda and Shigetoshi Sano. Nankoku, Japan and Suita, Japan.
094* Cross talk of melanoma cells and peritumoral fibroblasts influences melanoma proliferation: Regulation of hyluronan synthesis in fibroblasts. Ulf Anderegg, Anja Willenberg, Anja Saalbach and Jan C Simon. Leipzig, Germany.


096 Role of PKCδ in maintenance of cancer stem cells. Young Lee, Kyung-Cheol Sohn, Dae-Kyoung Choi, Myung Im, Young-Joon Seo and Jeung-Hoon Lee. Daejeon, South Korea.


098* HGF transactivates keratinocyte EGFR signaling, potentiates the tumorigenic phenotype of oncogenic ras-transduced keratinocytes in vitro and enhances skin carcinogenesis in vivo. Fan Liu, Christophate Cataisson, Raza Zaidi, Glenn Merlino and Stuart H Yuspaa. Bethesda, MD and Chevy Chase, MD.

099 Topical tacrolimus treatment does not facilitate UV-induced carcinogenesis in a mouse model. Takeo Shiga, Maki Yokogawa, Masahito Tarutani and Shigetomi Sano. Nankoku, Japan.

100 Hyperstimulation of mitogen signal pathways is responsible for dysregulated Laminin-332 expression in premalignant keratinocytes and squamous cell carcinoma. Martin Degen, Patricia Barron, Hans Widlund and James G Rheinwald. Boston, MA.


102 Immunohistochemical demonstration of Z-DNA in the epidermal cells of human melanoma tissue. Kayvan Beheštī, Claude E Gagna and W Clark Lambert. Old Westbury, NY and Newark, NJ.

103 Lysate from cultured fetal fibroblast for skin rejuvenation: Composition and in vitro activities. Jürgen Eberle, Frank Dreher and Egbert Stockfleth. San Francisco, CA and Berlin, Germany.

104 ADAMTS-12: A biomarker for nonmelanoma skin cancer disease progression. Lisam S Peng and Suzanne Regan. Tucson, AZ.


106 A genetic appraisal of the frequency of functional RET G691S polymorphism in the pure versus the mixed variants of desmoplastic melanoma. Shi Yang, Andrew Emley, April Deng, Mai P Hoang and Meera Mahalingam. Boston, MA and Worcester, MA.


108 Expression of epidermal growth factor receptor (EGFR) and detection of mutant EGFR (EGFRVIII) in human cutaneous squamous cell carcinoma. M. DeMarra, N. Duncan, S. Wong, M. Neuburg, Z. Lazarova and E. B. Olaa. Milwaukee, WI.

109 Induction of chemokine receptor CKCR4 expression by transforming growth factor-β1 in human basal cell carcinoma cells. Shih-Hwa Liao, Chia-Yu Chu, Shih-Ting Cha, Yeh-Fang Hu, Hsien-Ching Chiu and Min-Liang Kuo. Taipei, Taiwan.

110 Inhibition of vascular endothelial growth factor receptor 3 ligands inhibits tumor development in a model of multistep skin carcinogenesis. Annamari K Allfalo, David Aebischer, Nicole Schneider, Reto Huggenberger and Michael Detmar. Zurich, Switzerland.

111 Glycolipid O-acetylation drives human squamous cell carcinoma proliferation and survival via EGFR-Ras-independent activation of PKCa and Akt signaling. Xiao-Wang Ai, Amrita Aurora, Hristo Iordanov, Nandita Gatla, Daniel Bach, Evelyn Angulo and Amy S Paller. Chicago, IL.

112 In-situ expression of fas apoptotic pathway proteins in archival samples of cutaneous T-cell lymphoma (ctl), cutaneous anaplastic large cell lymphoma (alc) and lymphomatoid papulosis (lpp). Nathalie Stutz, Ryan D Johnson and Gary S Wood. Madison, WI.

113 Akt inhibits autophagy through Beclin 1 phosphorylation and formation of a Beclin 1/kinetin intermediate filament complex. Richard C Wang, Yongjie Wei and Beth Levine. Dallas, TX.


115 The developmental factor IRF6 exhibits tumor suppressor activity in squamous cell carcinomas. Giulia Spallone, Elisabetta Botti, Francesca Moretti, Barbara Marinari, Valentina Pinetti, Sergio Chimenti, Maurizio Fanciulli, Giovanni Blandino, Luisa Guerrini and Antonio Costanzo. Roma, Italy and Milano, Italy.


117 Aberrant regulation of keratinocyte migration by intracellular protein o-glycosylation in the A431 squamous cell carcinoma cell line. Meryem Bektas and David Rubenstein. Chapel Hill, NC.


120 Catalase potentiates a sex discrepancy in myeloid-derived suppressor cell expansion in a mouse model of ultraviolet light-induced skin cancer. Nicholas J Sullivan, Kathleen L Tober, Erin Burns, Jonathan Schick, Judith Rigbenbach, Matthew Bill, Gregory Young, Tatiana M Oberszyn and Gregory B Lesinski. Columbus, OH.

121 Platelet derived growth factor (PDGF) directly binds to integrins and this interaction plays a role in PDGF signaling. Parastoo Davari, Tiffany J Dickerson, Yoko K Takada and Yoshikazu Takada. Sacramento, CA.


124* An inflammatory response in the A6636 transgenic mice reveals a pro-tumorigenic role for A6636. Rose-Anne Romane and Sarajjit Sinha. Buffalo, NY.

125* Cross talk of melanoma and peritumoral fibroblasts influences melanoma proliferation: Regulation of hyluronan synthesis in fibroblasts. Ulf Anderegg, Anja Willenberg, Anja Saalbach and Jan C Simon. Leipzig, Germany.

126* Fusion of the melanoma gene, p14arf on 9p, to a translocation hot spot in 22q1 in a patient with melanoma, deafness and DNA repair deficiency, is a negative regulator of p14arf and TBX1. Xiao Hui Tan, Sarah L Anzick, Sikandar G Khan, Tahkiiro Ueda, Gary Stone, John D GiDiovanah, Deborah Tamura, Daniel Wattendorf, Carmen Brewer, Chris Zalewski, Robert Walker, Andrew Grifith, John Butman, Paul Meltzer, Paul Bergstrom and Kenneth H Kramen. Bethesda, MA; Tokyo, Japan; Bethesda, MD; Washington, DC and Dallas, TX.

128 The squamous cell carcinoma transcriptome defined by high-throughput sequencing (RNA-seq). Liming Luan and Thomas Andl. Nashville, TN.

129 High throughput RNA sequencing of Sezary syndrome and cutaneous squamous cell carcinoma. Cari Lee, Kun Qu, Daniel Webster, Markus Kretz, Angela Mah, Alex Ungewickell, Randy Armstrong, Wen-Kai Weng, Yoon Kim, Howard Chang and Paul Khavari. Palo Alto, CA.

130 Chemokine receptor CXC4 is a novel marker for the progression of skin cancer. Seiko Toyozawa, Yuki Yamamoto, Chikako Kaminaka, Tomoo Kishi, Yasushi Nakamura and Fukumi Furukawa. Wakayama, Japan.

131 MicroRNA-21 is an important downstream component of BMP signaling in skin epithelial cells. Mohammed I Ahmed, Andrii N Mardaryev, Andrey A Sharov and Natalia V Botchkareva. Bradford, United Kingdom and Boston, MA.


133 Modeling the consequences of EGFR ablation therapy in squamous cancer by gene expression profiling of oncogenically transformed mouse keratinocytes. Lisa N Wright, Yosef Riss, Andrew Rycavague and Stuart H Yuspa. Bethesda, MD.

134 Mode of T cell administration determines homing sites of tumor-associated-antigen (TAA)-specific Th1 cells to the tumor site and treatment success. Christoph M Griesinger, Andreas Schmid, Daniel Bukala, Kerstin Fuchs, Heidi Braumüller, Susanne Kaesler, Tilo Biedermann, Bernd J Pichler, Martin Röcken and Manfred Kniefell. Tübingen, Germany.

135 Identification of mediators of immune evasion in a modular mouse model of squamous cell carcinoma. David W Dwyer, Marco L Leung, Trellis B Thompson and Kenneth Y Tsai. Houston, TX.

136 Src1 histone deactetylase (HDAC) is increased in cutaneous t-cell lymphoma (CTCL) and its inhibition induces apoptosis. Minakshi Nihal, Nihal Ahmad and Gary S Wood. Madison, WI.


138 Inhibition of PI3K/AKT/mTOR pathway in human melanoma cells with induction of apoptosis and decreased tumor growth both in vitro and in vivo by a dietary flavonoid fisetin. Deeba N Sreed, Vagasi M Adhami, Jean Christopher Chameau and Hasan Mukhtar. Madison, WI.


140* IL-17 receptor A deficient mice are resistant to chemical carcinogen induced cutaneous tumors. Dongguo He, Hui Li, Nabiba Yusuf, Craig A Elmets, Mohammad Athar, Santosh Katyiar, Jun Li, John Mountz and Hui Xu. Birmingham, AL.


142 Oncogene addiction to Merkel cell polyomavirus large T antigen in Merkel cell carcinoma. Monique E Verhaegen, Christopher K Bichakjian, Melissa Voutsalath, Jack Weick, Paul Baciuc, Elsa Quintana, Tracy D Stromer, Joanna Pero, Kevin T Nash, Angelo E Avar, Timothy M Johnson and Andrezj A Dlugosz. Ann Arbor, MI.

143 Whole genome (exome) sequencing of xeroderma pigmentosum patients reveals a finite and distinct pattern of mutations in pathophysiologically relevant genes. Peter Bauer, York Kamenisich, Claudia Bauer, Martin Röcken, Olaf Riess and Mark Berneburg. Tübingen, Germany.

144 The anti-motility signaling mechanism by transforming growth factor-β (TGFβ) in human dermal fibroblasts during wound healing. A Han, B Bandyopadhyay, J Fan, M Chen, D Woodley and W Li. Los Angeles, CA.


146 Analysis of gene copy number variation and expression in cutaneous T-cell lymphoma cell lines. William Liu, Badi Modji, Julia Lewis, Renata Filler and Michael Girardi. New Haven, CT.

147 The squamous cell carcinoma transcriptome defined by high-throughput sequencing (RNA-seq). Liming Luan and Thomas Andl. Nashville, TN.

148 Human basal cell carcinoma demonstrate both outer and inner root sheath differentiation. Antsas Beneketh, Ilario Siciliano, Paul Bowden, Chantal Colmont and Girish K Patel. Cardiff, United Kingdom.


150 Real-time cell cycle imaging: Melanomas are composed of differentially cycling tumor cells in a subcompartment-specific distribution. Nikolas K Haas, Andrea Anfosso, Ichiko Kinjo, Osami Kanagawa and Wolfgang Wening. Sydney, Australia and Yokohama City, Japan.

151 Rapamycin augments the chemopreventive effects of sulindac and suppresses UVB-induced cutaneous photocarcinogenesis in Ptc+/− hairless mice. Sandeep C Chaudhary, Deepali Kurundkar, Tripti Singh, Zhiping Weng, Craig A Elmets, Levity Kopelovich and Mohammad Athar. Birmingham, AL and Bethesda, MD.

152 Merkel cell polyomavirus large T antigen impairs DNA repair and cell cycle arrest following DNA damage. Stephanie K Demetriou, Erin M Sullivan, Tiffany K Dong and Dennis H Oh. San Francisco, CA.

153 Oncogenic activity of dysregulated ΔNp63α in squamous carcinogenesis. Lijan Ha, Kathryn E King, Rosolini M Ponnamperram, Steven Jay, Stacey Ricci and Wendy C Weinberg. Bethesda, MD and Frederick, MD.

154 Endothelin-3 and bFGF jointly induce the proliferation of normal human melanocytes in defined media and increase synthesis of chemokines that are linked to melanoma progression. Claire Q Wang, Hiroshi Mitsu, Mayte Suarez-Farinas, Nicholas Gulati, Juana Gonzalez, Erika Billick and James G Krueger. New York, NY.

155 Liver kinase B1 in the pathogenesis of UVB-induced murine basal cell carcinoma. Yevgeniya A Byekova, Jennifer L Herrmann, Jianmin Xu, Craig A Elmets and Mohammad Athar. Birmingham, AL.

156* Engineered dendritic cell (DC)- or DNA-based vaccines raise immune responses to a carcinogen-induced point mutation of the H-ras oncogene that protects against tumor development. Kyle Rudmiller, Tahaseen Nasti, George Twitty, Pee Kyung Kim, Angel Rivera, Justin Roth, Aton Holzer, Yoko Tsruta, Nabiba Yusuf, Mohammad Athar, Craig Elmets and Laura Timares. Birmingham, AL.

157 Novel glucocorticoid receptor modulator compound A inhibits skin inflammation and hyperplasia. Anna Klopot, Gleb Baida and Irina Budunova. Chicago, IL.

162 Genotoxicity testing of topically applied skin care and dermatology products using the normal human cell based skin model EpiDerm™. Yulia Kaluzhny, Patrick Hayden, Viktor Karestky, Jane DeLuca, Seyoum Aveyunie and Mitchell Klausner. Ashland, MA.

163 Biophotometric analysis reveals that self-perpetuating focal areas of hyperemia invariably precede cutaneous neoplasia and are suppressed by topical cecloxicib treatment. Raymond L Konger, Ravi P Sahu, Zhengbin Xu and Young L Kim. Indianapolis, IN and West Lafayette, IN.

164 Combined inhibition of sonic hedgehog (shh) and nuclear factor kB (NfKb) signaling pathways in the prevention of basal cell carcinomas (BCCs). Aadithya Arumugam, Zhiwen Weng, Levy Kopelovich and Mohammad Athar. Birmingham, AL and Bethesda, MD.


166 Quantitative immunohistochemistry of cutaneous metastatic breast carcinoma. Matthew Elgart, Catherine Welsh and Evangelos V Badiavas. Miami, FL.

167 Somatic alterations in mtDNA trigger changes in CCL20 expression promoting tumorigenic phenotypes. Jana Jandova, Jaroslav Janda and James E Sligh. Tucson, AZ.


169 Basal cell carcinoma tumor subtype is defined by its cell of origin. P Lunny, Bruno Reversade and Broesby-Olsen, Malcolm A Ferguson-Smith, Chandra Verma, Declan Coats, Arlene Stewart, Lesley Christie, Gabriella Pichert, Jean Friedel, Ian Szeverenyi, Stuart Avery, Brian O’Connor, Stanley Nelson, Stephanie Goudie, Mariella D’ Alessandro, Barry Merriman, Hane Lee, Ildiko Jana Jandova, Jaroslav Janda and James E Sligh. Tucson, AZ.

170 Blockade of mTOR-dependent phosphorylation of Sirtuin 1 prevents disease stage-related decreases in distinct superantigen-related T cell receptor-VBS in cutaneous T-cell lymphoma. Rebecca G Pomerantz, Ezra D Mirvish, Timothy J Patton, Louis D Falo and Larisa J Geskin. Pittsburgh, PA.


172 Disruption of lipid rafts induces EGFR signaling in hair follicle cells and basal cell carcinoma. Matthew Elgart, Catherine Welsh and Evangelos V Badiavas. Miami, FL.

173 Phosphatidylinositol 3-kinase enhancer is required for the proliferative action of epidermal growth factor in squamous cell carcinoma cells. Zhongjian Xie, Yi Jiang, Er-Yuan Lao, Ying Chen and Sally Pennypacker. San Francisco, CA; Changsha, China and Beijing, China.

174 MAGE-C2 promotes tumor growth, DNA damage repair, and phosphorylation of KAP-1. Neelhar Bhatta, Saravanan Thiagarajan, Tony Z Xiao, Mark R Albertini and Jack B Longley. Madison, WI.

175 Disease specific spectrum of mutations in TGFBR1 causing multiple self-healing squamous epithelioma (Ferguson-Smith disease). David Goudie, Mariella D’Alessandro, Barry Merriman, Hane Lee, Ildiko Szeverenyi, Stuart Avery, Brian O’Connor, Stanley Nelson, Stephanie Coats, Arlene Stewart, Lesley Christie, Gabriella Pichert, Jean Friedel, Ian Hayes, Nigel Burrows, Sean Whittaker, Anne-Marie Gerdes, Sigurd Broesby-Olsen, Malcolm A Ferguson-Smith, Chandra Verma, Declan P Lunny, Bruno Reversade and Brigitte Lang. Dundee, United Kingdom; Los Angeles, CA; Singapore, Singapore; London, United Kingdom; Chalon-sur-Saône, France; Auckland, New Zealand; Cambridge, United Kingdom; Copenhagen, Denmark and Odense, Denmark.

Cell Adhesion/Matrix and Vascular Biology

All orals [designated with an asterisk (*)] listed below are presented in the Cell Adhesion/Matrix and Vascular Biology Minisymposium on Saturday, May 7, 2011 from 12:30-4:00 p.m. in Wildflower A, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

176* The DSPII splice variant is critical for desmosome-mediated HaCaT keratinocyte adhesion. Rita M Cabral, Daniel Tattersall, Vishal Patel, Elizabeth Hartzimasourea, Dominic J Abrams, Andrew P South and DavidP Kessell. London, United Kingdom and Dundee, United Kingdom.

177 Regulation of PDGFR receptor β signaling in pericytes by MFG-E8. Sei-Ichiro Motegei, Susan Garfield and Mark C Udey. Bethesda, MD.

178 Matrix metalloproteinase-8 is involved in dermal nerve growth: Implications for possible application to pruritus from in vitro models. Mitsutoshi Tominaga and Kenji Takamori. Urayasu, Japan.

179 Establishment of the Matrigel plug assay in domestic pig skin to investigate intra-dermal angiogenesis. Jose G Meingassner, Manuela Pillinger, Herrmann Fahrgruber, Elisabeth Kowalsky and Anton Stuetz. Vienna, Austria.


181* Ectodomain shedding of LYVE-1 in psoriasis: VEGF-A induces the biochemical cleavage in lymphatic vessels. Satoshi Hirakawa, Hisayo Nishida-Fukuda, Ryochi Araki, Xiuji Dai, Yasushi Hanakawa, Koji Sayama, Yui Shikaraka, Mikiko Tohyama, Michael Detmar, Koji Hashimoto, Shigeki Higashiyama and Yoshiki Tokura. Hamamatsu, Japan; Toon, Japan and Zurich, Switzerland.

182* Desmosomal cadherins utilize different mechanism for assembly into desmosomes. Oxana Nekrasova, E Amargo and J K Green. Chicago, IL.

183 Characterizing the collagenolytic activity of HuCathepsin L and rHuMMP1 for the development of potential treatments of fibrotic skin conditions. Rudolph D Paladini, Ge Wei, Anirban Kundu, Qing Zhao, Panneer Selvam, H Michael Shepard, Gregory I Frost and Gilbert A Keller. San Diego, CA.

184 Bacterial challenge on percutaneous implants. Ge Alice Zhao, Robert Underwood, Marcia Usui, Marshall Andrew, John Olerud and Philip Fleckman. Seattle, WA.

185 Implication of dermatopontin and decorin in dermal fibers organization and preservation from UV stress. Ludvine Mur, Chrystelle Pelle, Gopinathan Menon, Jean Marie Botto, Claude Dal Farra and Nouha Domloge. Sophia Antipolis, France and Wayne, NJ.


187 Vascularization of human acellular dermis on chick chorioallantoic membrane. P Blasi, M Andreassi, I Barberini, A Schoubben, P Alberti, M Ricci, C Anselmi, C Cirotto, C Rossi and L Andreassi. Perugia, Italy and Siena, Italy.


190 Action of skin care active ingredients on actin and matrix contraction in dermal and epidermal structures ex vivo. Elan Lat, Françoise Arnold, Chloe Merle, Laurent Preno-Mazzarino, Philippe Gasser and Michel Mercier. Longjumeau, France; Issy les Moulineaux, France and South Plainfield, NJ.

192* Antagonizing the effects of pemphigus IgG by manipulating intracellular protein O-glycosylation. Paula Berkowitz and David Rubenstein. Chapel Hill, NC.

193* MMP2-null mice are less susceptible to pemphigus foliaceus induction. Ning Li, Zhi Liu, Lisa Heinbach, Moonhee Park, Robert Senior and Luis A. Christman. Chapel Hill, NC and St. Louis, MO.

194* Elucidation of the molecular mechanisms underlying inverse type of recessive dystrophic epidermolysis bullosa using site-directed mutagenesis. Y Hou, J Cogan, E Cua, S Lee, D Woodley and M Chen. Los Angeles, CA.

195** The role of desmocollin 3 in skin tumor development and progression. Jiangli Chen, Charlene O'Shea, James E Fitzpatrick, Marcinkel Koster and Peter J Koch. Aurora, CO.


197* Expression of catalytically active Matrix Metallopeptinase-1 in dermal fibroblasts induces morphological and functional alterations that mimic aged human skin. Wei Xia, Craig Hammerberg, Yong Li, John J Voorhees and Gary J Fisher. Ann Arbor, MI.

198* Elevated Cysteine-rich protein 61 (CYR61/CCN1) mediates down-regulation of collagen expression in senescent human dermal fibroblasts. Taihao Quan, Zhaoping Qin, Tianyuan He, John J Voorhees and Gary J Fisher. Ann Arbor, MI.

199* Fibropeptin is a negative regulator of keratinocyte migration. Kevin J Hamill, Susan B Hopkinson, Paul Hoover, Viktor Todorovic, Kathleen J Green and Jonathan C Jones. Chicago, IL.

200* The desmosomal protein plakophilin 2 is required for proper extracellular matrix attachment and keratinocyte differentiation. Evangeline V Amargo, Jennifer L Koetsier, Jordi L Johnson, Viktor Todorovic, Kathleen J Green and Lisa M Goldsel. Chicago, IL.


203* DNA changes alter murine fibroblasts migration and invasiveness by inducing the expression of the matrix metalloproteinase 9 (MMP-9), an effect mediated by NF-kB. Jaroslav Janda, Jana Jandova and James E Sligh. Tucson, AZ.

204* Hemoglobin a1c predicts healing rate in diabetic wounds. Andrea L Christman, Elizabeth Selvin, Gerald S Lazarus and Luis A Garza. Baltimore, MD.


208* Calcium plus vitamin D supplementation and the risk of nonmelanoma and melanoma skin cancer. Teresa Fu, Jean Y Tang, Erin LeBlanc, JoAnn E Manson, David Feldman, Joe Larson, Eleni Linos, Mara Z Vitolins, Nathalie C Zeitouni and Marcia L Stefanick. Redwood City, CA; Portland, OR; Boston, MA; Seattle, WA; Buffalo, NY and Winston-Salem, NC.

209* Menopausal hormones and skin cancer risk in postmenopausal women: The women's health initiative hormone therapy trials. Katrina M Spahnust, Jean Y Tang, Elizabeth Keiser, Matthew L Anderson, Rowan T Chlebowski, Joseph C Larson, Judith Ockene, Fritdjof Thomas, Jean Wactawwski-Wende, Nathalie Zeitouni and Marcia L Stefanick. Stanford, CA; Los Angeles, CA; Worcester, MA; Houston, TX; Seattle, WA; Buffalo, NY and Memphis, TN.

210* Validation of the AJCC staging system for cutaneous squamous cell carcinoma and a proposed refinement to improve prognostic discrimination. Anokhi Jambusbiria, Peter Kanetsky, Wei-Ting Huang, Joel Gelfand, Faith Whalen, Rosalie Elentjas, George Xu and Chrysalyne Schmults. Philadelphia, PA; Jamaica Plain, MA and Danville, PA.

211* Psoriasis is associated with an increased prevalence of metabolic syndrome that varies directly with objectively measured severity. Sinead Langan, Nicole Seminara, Daniel Shin, Andrea Troxel, Stephen Kimmel, Nehal Mehta, David Margolis and Joel Gelfand. Philadelphia, PA.


213* Early UV exposure and risk of multiple non-melanoma skin cancers in U.S. men and women. Erin N Wei, Jiali Han, Tricia Li and Abrar Qureshi. Boston, MA.


215 The severity of pediatric psoriasis correlates with risk of obesity: An international multi-center controlled assessment. Anne Mahoney, Latanya Benjamin, Candrice Heath, Shields Callahan, Caroline Robinson, Alan Menter, Kelly M Cordoro, Giampiero Girolomoni, Wynnis Tom, Siew Eng Choon, Sapna Patel, Mary Kwaasly, Alfred Rademaker and Amy S Paller. Chicago, IL; Dallas, TX; Johor Bahru, Malaysia; San Francisco, CA; Verona, Italy and San Diego, CA.

216* A prospective study of physical activity and risk of incident psoriasis in women. Hillary C Frankel, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA.

217 Contributes of nodular subtype to overall melanoma mortality. W R Shaikh, M Xiong and M A Weinstein. Providence, RI.


219 Increased dermatologist density associated with reduction in melanoma mortality. Savina Aneja, Sanjay Aneja and Jeremy S Bordeaux. Cleveland, OH and New Haven, CT.

220 Psoriasis and risk of hypertension in US women. April W Armstrong, Jiali Han, Tricia Li, John P Forman and Abrar A Qureshi. Sacramento, CA and Boston, Massachusetts.


222 Not so positive: Optimism and public self-consciousness were not associated with the placebo response in a rosacea trial. Marisa Kardos, Geurim Kim, Anne Lynn S Chang and Alexia B Kimball. Boston, MA and Redwood City, CA.

223* Pathway analysis for genome-wide association study of basal cell carcinoma. Mingfeng Zhang, Liming Liang, Abrar A Qureshi and Jiali Han. Boston, MA.

224* An analysis of the characteristics of initial and second primary melanomas using data from the Surveillance, Epidemiology, and End Results (SEER) Program. Michael E Ming and Daniel B Shin. Philadelphia, PA.

Epidemiology and Health Services Research

All oral sessions [designated with an asterisk (*)] listed below are presented in the Epidemiology and Health Services Research Minisymposium on Friday, May 6, 2011 from 2:00-5:30 p.m. in Grand Canyon 9-10, JW Marriott Desert Ridge. Oral sessions designated with two asterisks (**) will be presented during a Plenary Session.
225 Treating patients with psychocutaneous disease in the outpatient dermatology setting. The results of a survey. Sarah N Gee, Lisa Zakharv, Daniela Kroshinsky and Alexandra B Kimball. Boston, MA.

226 Indoor tanning is associated with increased utilization of skin cancer screening by patients otherwise at low risk for skin cancer. Aaron Secrest, Ryan Androulis, Timothy Patton, Lisa Grandinetti and Laura K Ferris. Pittsburgh, PA.

227 Smoking in psoriasis patients may lessen risk of psoriatic arthritis development and delay age of onset. Daniel Zaghi, Tina R Nandi, Brian Sauer, Greg Stoddard, Bingjian Feng, Jessica Walsh, Bob Wong, Jamie Woodcock, Gerald G Krueger and Kristina C Duffin. Salt Lake City, UT and Cleveland, OH.


229 Skin aging as a mirror of lung damage. Andrea Vierkoetter, Tamara Schikowski, Dorothee Sugiri, Mary Matsui, Jean Krutmann and Ursula Kraemer. Düsseldorf, Germany; Basel, Switzerland and Melville, NY.


231 Epidemiologic study on the prevalence, disease severity and risk factors of atopic dermatitis in 19-year-old Korean males. In Ho Kwon, Kyu Han Kim, Shin Woo Kim, Chong Hyun Won, Sung Jun Seo, Chun Wook Park and Jin Wou Kim. Chunchon, South Korea; Seoul, South Korea; Ulsan, South Korea.

232 High correlation between the SPASI and PASI supports the use of the SPASI as a simple alternative to the PASI. Greg Stoddard, Bingjian Feng, Jessica Walsh, Jamie Woodcock, Gerald G Krueger, Geraldine Mineau and David E Goldgar. Salt Lake City, UT.

233 Internet social networking sites and the future of dermatology journals: Promises and perils. Ashley A Hay, Laura S Huff and Robert P Dellavalle. Loma Linda, CA; Denver, CO and Aurora, CO.


236 Statin use is not protective for incident psoriasis. Maley B Naik, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA.

237 Patterns of use of non-UV alternatives to indoor tanning among female college students. Veronica A Russo, Monica M Van Acker, Jillon S Vander Wal, Quenby L Erickson and Animesh A Sinha. East Lansing, MI and Saint Louis, MO.

238 Cohort findings in genome-wide association study era. Jiali Han and Abrar Qureshi. Boston, MA.


243 Psoriasis and risk of type 2 diabetes among women and men in the United States. Wenqing Li, Jiali Han, Frank Hu, Gary Curhan and Abrar Qureshi. Boston, MA.

244 Obesity, waist circumference, weight change, and the risk of psoriatic arthritis in US women. Sandeep Kumar, Jiali Han and Abrar Qureshi. Boston, MA.


247 Sun protection counseling of non-white ethnorracial groups: The physician’s perspective. Crystal Poircriau, Melody Eide, Meredith Mahan and Henry Lim. Detroit, MI.


249 Disparities in skin cancer screening exams conducted in the primary care setting. Kathryn J Martinez, Greg J Minwell and Jeremy S Bordeaux. Cleveland, OH.

250 Celiac disease associated antibodies are present in 9% of alopecia areata sera. L Petukhova, C Arguelles-Grandes, B Lebwohl, M Duvic, M Hordinsky, D Norris, V Price, R Clynes, P H Green and A M Christiano. New York, NY; Houston, TX; Minneapolis, MN; Denver, CO and San Francisco, CA.


253 High prevalence of psoriatic arthritis (PsA) with a significant impact on quality of life (QOL) in psoriasis (PsO) patients evaluated at a multidisciplinary center for complex psoriatic disease. Atul A Deodhar, Brian Truong, Aman Samrao, Ben L Ehst, Theresa Devere, Joel M Gelfand and Andrew Blauvelt. Portland, OR and Philadelphia, PA.


257* Atopic dermatitis prevalence and co-morbidities in the Growing Up Today Study II. Hillary C Frankel, Lindsay Frazier, Carlos A Camargo, Jiali Han, Tricia Li and Abrar A Qureshi. Boston, MA.


259 OCA2 and MCIR interact with UV exposure to determine nevus counts and freckle scores in children. Neil Box, Victoria Gonzalez, Nancy Asgiani, Jenny Aalborg, Tamara Terzian, Anna Baron, Regan Stiegmann, Enrique Tchoria, Robert Dellavalle, Stefan Mokrohisky, Joseph Morelli and Lori Crane. Aurora, CO.
Epidermal Structure and Function

All orals [designated with an asterisk (*)] listed below are presented in the Epidermal Structure and Function Minisymposium on Thursday, May 5, 2011 from 2:00-5:30 p.m. in Grand Canyon 3-4, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

260 Endothelin-converting enzyme-1 modulates endothelin-1-induced pruritus by inhibiting endothelin receptor recycling and prolonging ERK1/2 signaling in murine sensory neurons. Makiko Kido, Jörg Buddenkotte, Cordula Kempe, Stephan Seeliger, Ferda Cevikbas, Masataka Furue and Martin Steinhoff. Münster, Germany; Fukuoka, Japan; San Francisco, CA and Göttingen, Germany.

261 The role of adenomatous polyposis coli (APC) in epidermal development and hair follicle morphogenesis. Kathleen Cook, Xiaoyang Wu, Nicole Stokes and Elaine Fuchs. New York, NY and Chevy Chase, MD.

262* ARNT-dependent expression of amphiregulin and consequent activation of EGF/Erk pathway is essential for normal epidermal differentiation. Douglas Robertson, Lynda Weir, Irene M Leigh and Andrey A Panteleyev. Dundee, United Kingdom.


266* Increased endogenous retinoic acid by the absence of Cyp26b1 impairs peridermal development and skin barrier formation during development. Junko Okano, Ulrike Lichti, Maria Aronova, Guofeng Zhang, Stuart H Yusp, Yasuo Sakai and Maria I Morasso. Bethesda, MD and Osaka, Japan.

267 Callus formation is associated with hyperproliferation, incomplete differentiation of keratinocytes, and increased expression of adhesion molecules. Hye In Choi, Su Hee Kim, Gye In Choi, Kyung Cheol Sohn, Young Lee, Chang Deok Kim, Tae Jin Yoon, Jeong Hoon Lee and Young Ho Lee. Daejeon, South Korea and Jinju, South Korea.

268 A purified feverfew extract increases skin’s antioxidant and cellular detoxification defenses by activating the Nrf2 — antioxidant response element (ARE) pathway. Simarna Kaur, Karien Rodriguez, Frank Liebel and Michael D Southall. Skillman, NJ.


270 The p75 neurotrophin receptor acts as a ‘switch on-off’ protein in keratinocyte differentiation. Elisabetta Palazzo, Francesca Truzzi, Alessandra Marconi, Roberta Lotti, Katia Scialli, Tiziana Petracchi and Carlo Pincelli. Modena, Italy.


273 IFNγ inhibits TNFα-induced CTACK/CCL27 production from keratinocytes through EGF receptor signaling pathway in a differentiation dependent manner and CTACK/CCL27 production in the centrals of psoriatic lesion. Masaru Karakawa, Mayumi Komine, Hidetsugu Tsuda, Kunihiko Tamaki, Shinichi Sato and Mamitaro Ohtsuki. Shimotsuke, Japan and Tokyo, Japan.

274 Is the functional skin adaptation complete and competent in infancy? Joachim W Fluhr, Razvigor Darlenski, Jean-Pierre Hachem, Philippe Misika, Clarence de Bellovsky, Caroline Baudouin and Enzo Berardesca. Berlin, Germany; Sofia, Bulgaria; Brussels, Belgium; Epernon, France; Paris, France and Rome, Italy.

275 Aaryl hydrocarbon receptor dependent c-kit expression is required for dendritic epidermal T cell homeostasis in murine skin. Stephanie Kadow, Britta Wingerath, Bettina Jux, Stefanie Chimli, Jean Kruttman, Heike Weigardt and Charlotte Esser. Düsseldorf, Germany.


278 STRA6 modulates retinol uptake and cell proliferation in epidermal keratinocytes. Claudia Skazik, Ruth Heise, Yvonne Marquardt, Katharina Czaja, Hans F Merker, David R Bickers and Jens M Baron. Aachen, Germany and New York, NY.

279* Role of centrosomal proteins and cortical microtubes in epidermal barrier formation. Kaelyn Sumigray and Terry Lechler. Durham, NC.

280 Filaggrin-induced stratum corneum pH modulation following external and internal stressors. Trous Roelants, Christina Giddello, Tom Hilary, Caroline Baudouin, Philippe Misika, Diane Roseeuw, Joachim Fluhr and Jean-Pierre Hachem. Brussels, Belgium; Epernon, France and Berlin, Germany.

281 LEDGF plays a crucial role in pathogenesis of psoriasis vulgaris via activation of the p38MAPK/MK2/IL-6/STAT3 pathway. Takuya Takeichi, Kazumitsu Sugie, Yoshinaro Muro, Yasushi Ogawa and Masashi Akiyama. Nagoya, Japan.

282 Integration of Langerhans-like cells into a three-dimensional full-thickness skin model. Vessella Laubach, Nadja Zöller, Maia Rossberg, Kerstin Görg, Stefan Kippenberger, Jürgen Bereiter-Hahn, Roland Kaufmann and August Bernd. Frankfurt/Main, Germany.

283 A dietary anthocyanidin delphinidin promotes epidermal differentiation and activation of caspase-14 in human epidermal keratinocytes and reconstituted skin. Farrukh Afaq, Deeba N Syed, Najgha Khan and Hasan Mukhtar. Birmingham, AL and Madison, WI.

284 Age-related NADH oxidase catalyzed oxidation and cross-linking of skin proteins. Christiana Meadows, Dale G Kern, Zoe D Draelos, Helen E Knaggs, Dorothy M Morre and D J Morre. Provo, UT; West Lafayette, IN and High Point, NC.


286 siRNA-induced survivin deficiency promotes mitotic catastrophe events in human keratinocyte stem cells. Florian Labarrade, Jean Marie Botto, Claude Dar Falra and Nouha Domloge. Sophie Antopolis, France and Wayne, NJ.

287 CoQ10-Binding Protein and PDSS1 play an essential role in epidermal dendritic epidermal T cell homeostasis in murine skin. Stephanie Kadow, Britta Wingerath, Bettina Jux, Stefanie Chimli, Jean Kruttman, Heike Weigardt and Charlotte Esser. Düsseldorf, Germany.


291 Cold-induced expression of epidermal differentiation markers. Qing Zhou, Nathan Kan, Adriane Karpetayan, Menna Araya, Venus Blas, Danielier Coles and Elizabeth L Rugg. Iris, CA.


293 Normal epidermal barrier function and recovery is controlled by nicotinic acetylcholine receptor activation. Steven Droho, Brenda J Curtis and Katherine A Radek. Maywood, IL.

294 Comparison between keratinocytes monolayer culture and keratinocytes/fibroblasts co-culture, after exposure to chemicals treatment. Imane Garcia, Marianne Arcioni, Cedric Pouzet, Marie Brulas, Eric Bauza and Nouha Domloge. Sophia antipolis, France and Wayne, NJ.

295 Lipid metabolism in the epidermis is regulated by dsRNA. Andrew W Borkowski, Yoshikazu Uchida, Kyungho Park and Richard L Gallo. San Diego, CA and San Francisco, CA.

296 FOXO3a transcription factor is implicated in fibroblast and skin senescence. Alexia Lebleu, Aurelie Fuet, Gopinathan Menon, Jean Marie Botto, Claude Dal Farra and Nouha Domloge. Sophia Antipolis, France and Wayne, NJ.

297 Basal epidermal niche components are important in the preservation of keratinocyte stem cells and epidermis self-renewal. Jean Marie Botto, Florian Labarrade, Yolene Guerif-Ferreira, Ludwine Mur, Gilles Oberto, Arlette Berghi, Karine Cucumel, Claude Dal Farra and Nouha Domloge. Sophia Antipolis, France and Wayne, NJ.


299 Epidermal and dermal innervation density in keloids. Ben Maddison, Ethan Tey, Ellen Hui Wang, Yozo Ishiju, A McMichael, M Marks, P Wilford, Daren Maruviza, Dudley Ferdinando, Jo Dicks and Gil Yosipovitch. Sharnbrook, United Kingdom; Singapore, Singapore and Winston Salem, NC.

300* Mechanisms of epidermal barrier impairment in FLG-deficient human epidermis. Robert Gruber, Peter M Elias, Debra Crumrine, Tzu-Kai Lin, Johanna M Brandner, Jean-Pierre Hachem, Richard BPresland, Philip Fleckman, Aileen Sandilands, Irwin McLean, Michael Mildner, Erwin Tschachler and Matthias Schmutz. Innbruck, Austria; San Francisco, CA; Hamburg, Germany; Brussels, Belgium; Seattle, WA; Dundee, United Kingdom and Vienna, Austria.


302 Skin barrier homeostasis is impaired in type 2 diabetes mellitus animal models such as db/db and ob/ob mice. Zheng, David Beier, Alan Brash, Peter Elias and Debra Crumrine. Nashville, TN; Boston, MA and San Francisco, CA.


304 Proteomics analysis of changes in the epidermal proteome after inactivation of an essential regulator of autophagy. Martin Stichenwirth, Heidi Rosstress and Erwin Tschachler. Vienna, Austria and Neuilly, France.

305* Role of the Arhylhydracarboxent receptor (AhrR) in extrinsic aging of human skin. Julie Tigges, Ulrike Huebenthal, Hans F Merk, Jean Krutmann and Ellen Fritsch. Duesseldorf, Germany and Aachen, Germany.


307 The in vitro sebum suppressive benefits of tridecylic carboxyethylate. John Bajor, Bijan Harirchian, Surajit Mukherjee and Carol Bosko. Trumbull, CT.

308 Characterization of phase I and II enzymes in human skin, skin equivalents and cultured keratinocytes: Human skin is a conjugating and detoxifying rather than activating metabolic organ. Christine Goetz, Karsten Ruwiedel, Roland Pfeiffer, Julia Tigges, Ulrike Hübenthal, Marc Majora, Robert Edwards, Pierre Aeby, Carsten Goebel, Camilla Pease, Hans Merk, Jean Krutmann and Ellen Fritsch. Duesseldorf, Germany; London, United Kingdom; Marly, Switzerland; Bedford, United Kingdom and Aachen, Germany.

309 Abnormalities in ultrastructure of epidermal lamellar bodies and corneocyte lipid envelope in Reffuse’s disease. Gopinath Menon, Evelyn Orso, Gerd Schmitz, Debra Crumrine and Peter M Elias. Wayne, NJ; Regensburg, Germany and San Francisco, CA.


311 Expression of epidermal CAMP changes in parallel with permeability barrier status. Marina Rodriguez-Martin, Gemma Martín-Ezquerra, Mao-Qiang Man, Melanie Hupe, Jong-Kyung Youm, Donald Mackenzie, Soyun Cho, Carles Trullas, Walter Holleran, Katherine Radek and Peter Elias. La Laguna, Spain; Barcelona, Spain; San Francisco, CA; Seoul, South Korea and Maywood, IL.

312 Impaired keratinocyte homeostasis in obesity and metabolic disease. Kristen R Taylor, Anne E Costanzo and Julie M Jameson. La Jolla, CA.

313 The role of mitochondrial sirtuins in keratinocyte biology. Alexandre S Bauso, Mary Matsui and Marcia C Haigis. Boston, MA and Melville, NY.


315 Pathogenesis(pathway)-based therapy and genetic basis for lateralization in CHILD syndrome. Amy Paller, Marina Rodriguez-Martin, Maurice van Steensel, Jennifer Sorrell, Candriece Health, Debra Crumrine, Michel van Geel and Peter Elias. Chicago, IL; La Laguna, Spain; Maastricht, Netherlands and San Francisco, CA.

316** Ets1 regulates the skin differentiation program by interfering with Notch activity. Shu Shen Chin, Priyadharsini Nagarajan, Dan Wang, Song Liu, Lee Ann Garrett-Sinha and Satrajit Sinha. Buffalo, NY.


318 Not all camellias are created equal: The effect of Camellia japonica extracts on barrier function and protection from environmental insult. Pinaki Bhatt, Alexandra D'Arcangelis, Alicia Marie Leo, Yannick Maestro and Christelle Lasserre. Piscataway, NJ and Moungins, France.

319 Epidermal melanocytes regulate epidermal barrier function and antimicrobial peptide expression. Mao-Qiang Man, Tzu-Kai Lin, John Sundberg, Melanie Hupe, Kathleen Silva, Anna Celli, Theodora Mauro, Kenneth Feingold and Peter Elias. San Francisco, CA; Bar Harbor, ME and San Francisco, CA.


321 Basis for desquamation of corneocytes in normal humans. Tzu-Kai Lin, Debra Crumrine, Richard Sun, Robert Rice and Peter Elias. San Francisco, CA and Davis, CA.

322 mir705 is involved in skin and hair follicle morphogenesis. Carolina Cela, Masoud Tava佐zie, Katie Fantauzzo, Colin A B Jahoda and Angela M Christians. New York, NY and Durham, United Kingdom.

323* Ovol2 converges with p63 to regulate epidermal morphogenesis. Briana Lee and Xing Dai. Irvine, CA.

325* Involvement of multiple pathways in keratinocyte DNA degradation. Mami Yamamoto, Teruhiko Makino, Akira Motoyama, Ryoji Tsuboi and Toshiko Hibino. Yokohama, Japan; Tokyo, Japan and Toyama, Japan.


327 Effects of 11β-hydroxysteroid dehydrogenase type 1 on lipogenesis in S295 sebocytes. Min Kim, Sang Eun Lee, Se Kyoo Jeong, Christos C Zouboulis and Seung-Hun Lee. Seoul, South Korea; Daejeon, South Korea and Dessau, Germany.

328* Aryl hydrocarbon receptor modulates keratinocyte differentiation by SIRT1 expression. Gaku Tsuboi, Masakazu Takahara, Hiroshi Uchi, Satoshi Takeuchi, Fumiko Yasukawa, Yoichi Moroi and Masutaka Furue. Fukuoka, Japan.

329 Expression of protease-activated receptor-2 in S295 sebocytes and its role in sebaceous lipid synthesis and inflammation. Sang Eun Lee, Se Kyoo Jeong, Jung Eun Jun, Ji Min Kim, Cristos C Zouboulis and Seung-Hun Lee. Seoul, South Korea; Daejeon, South Korea and Dessau, Germany.

330 Pathogenetic roles of Wnt ligand and Notch signaling in psoriasis. Jeong Eun Kim, Sungeun Chang, Seung Hyun Bang, Chong Hyun Won, Mi Woo Lee and Ji Ho Choi. Seoul, South Korea.

331 The role of a novel PPARy agonist (GMG-43AC) in the control of sebogenesis: prospective for an innovating treatment of acne. M Ottavani, A Mastromarco, D Kovacs, M Ludovici, C C Zouboulis, G Giuliani, E Camera and M Picardo. Rome, Italy; Dessau, Germany and Milan, Italy.

332 IASPP/p63 auto-regulatory feedback loop is essential for epithelial integrity and autophagy. Anissa Chikh and Daniele Bergamaschi. London, United Kingdom.

333 Dynamics of three-dimensional organization of the nucleus during terminal differentiation of the epidermal keratinocytes. Michal Gudla, Krzysztof Poterlowicz, Andrei Mardaryev, Andrey Sharov, Michael Fessing and Vladimir Botchkarev. Bradford, United Kingdom and Boston, MA.

334 A plant extract boosts lysyl oxidase expression in keratinocytes and improves terminal differentiation in a skin equivalent model. Valérie Genio, Gabrielle Le Provost, Valérie André-Frei and Pascal Sommer. Lyon, France.

335 mRNA profiling of circumscribed palmoplantar hyperkeratosis and the identification of ITGBL1 associated with the palmoplantar keratinocyte intercellular hyperadhesion. Alon Mantel, Amanda Mendini, JoAnne VanBuskirk and Alice P Pentland. Rochester, NY.

336 Dynamics of three-dimensional organization of the nucleus during terminal differentiation of the epidermal keratinocytes. Michal Gudla, Krzysztof Poterlowicz, Andrei Mardaryev, Andrey Sharov, Michael Fessing and Vladimir Botchkarev. Bradford, United Kingdom and Boston, MA.


338 Enhancement of the desmoplakin-keratin association promotes keratinocyte differentiation. Adam Duclos, Jakub Tolar, Maria A Hordinsky and Daniel Litchauer. Stony Brook, NY.

339* Sucking blister technique to evaluate skin fragility in children with recessive dystrophic epidermolysis bullosa (RDEB) treated with immunomodulatory chemotherapy and allogeneic stem-cell transplantation. Ana Junqueira Bertin, Jakub Tolar, Mark Osborn, Rina Raffah, Maria K Hordinsky and John E Wagner. Minneapolis, MN.


342 Localization of the novel hair shaft protein VSI68 in the hair follicle, nail unit, and oral cavity. Robert H Rice, Marjorie A Phillips and John P Sundberg. Davis, CA and Bar Harbor, ME.

343* Abca12-mediated lipid transport and Snap29-dependent trafficking of lamellar granules are critical for epidermal morphogenesis. Qiao Li, Michael Frank, Masashi Akiyama, Hiroshi Shimizu, Eli Sprecher and Jouni Uitto. Philadelphia, PA; Sapporo, Japan; Nagoya, Japan and Tel Aviv, Israel.

344 Histone deacetylases inhibitor Trichostatin A regulates microRNA gene expressions in human keratinocytes. Le Qu, Rui-Qun Ji, Chun-Hei, Xing-Hua Gao, Hong-Duo Chen, Qing-Sheng Mi and Li Zhou. Detroit, MI and Shenyang, China.

345* Abca12-mediated lipid transport and Snap29-dependent trafficking of lamellar granules are critical for epidermal morphogenesis. Qiao Li, Michael Frank, Masashi Akiyama, Hiroshi Shimizu, Eli Sprecher and Jouni Uitto. Philadelphia, PA; Sapporo, Japan; Nagoya, Japan and Tel Aviv, Israel.


349 Understanding transcriptional regulation of the epidermal differentiation complex (EDC) locus by sequence motif discovery. Danielle Albea and Cristina de Guzman Strong. St. Louis, MO.

350* EGFR is activated in pemphigus vulgaris and contributes to anti-desmoglein 3 antibody-mediated loss of cohesion in cultured mouse keratinocytes. Beyza Sayar, Camille Luyet, Katja Schulze, Maja M Suter, Eliane J Mueller and Arnaud Galichet. Bern, Switzerland.


352 Human keratinocytes display a restricted unfolded protein response by ultrasonic contrast agent with ultrasound in hairless mouse skin. Kyu Ji Choi, Dong Hee Park, Sang Eun Lee, Hee Seok Kweon, Jung Bum Seo, Bong Han Lee and Seung Hun Lee. Daejeon, South Korea; Wonju, South Korea and Seoul, South Korea.


354 Suction blister technique to evaluate skin fragility in children with recessive dystrophic epidermolysis bullosa (RDEB) treated with immunomodulatory chemotherapy and allogeneic stem-cell transplantation. Ana Junqueira Bertin, Jakub Tolar, Mark Osborn, Rina Farah, Maria K Hordinsky and John E Wagner. Minneapolis, MN.

355 Raman profiles of the stratum corneum and flaggrin genotypes of French individuals with or without a history of mild to moderate atopic dermatitis. Veronika Mlitz, Julie Latrelle, Sophie Gardiner, Leopold Eckhart, Christiane Guinot and Erwin Tschachler. Vienna, Austria; Neufly on Seine, France and Tours, France.

356 Human keratinocytes display a restricted unfolded protein response by ER stressors. Daniel Franco and Christopher Reardon. Phoenix, AZ and Tempe, AZ.

357* Human keratinocytes display a restricted unfolded protein response by ER stressors. Daniel Franco and Christopher Reardon. Phoenix, AZ and Tempe, AZ.

358 Human keratinocytes display a restricted unfolded protein response by ER stressors. Daniel Franco and Christopher Reardon. Phoenix, AZ and Tempe, AZ.

359 The effects of artemisia abrotanum (Southernwood) on multiple levels of the skin. Meghan Russell, Mike Anthonavage and Samantha Tucker-Samaras. Skillman, NJ.
**Genetic Disease, Gene Regulation and Gene Therapy**

All orals [designated with an asterisk (*)] listed below are presented in the Genetic Disease, Gene Regulation and Gene Therapy Minisymposium on Thursday, May 5, 2011 from 2:00-5:30 p.m. in Grand Canyon 11-12, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

360* PKCδ suppresses keratinocyte proliferation by increasing p21<sup>ras</sup> level via a KLF4-dependent mechanism. **Yap C Chew**. Gautam Adhikary and Richard L Eckert. Baltimore, MD.

361 The TIG3 tumor suppressor interacts at the centrosome to alter microtubule function to halt keratinocyte cell proliferation. **Haibing Jiang**, Tiffany Scharadin and Richard L Eckert. Baltimore, MD.

362* Combined biological and computational approaches to understand the role of Get1/Grhl3 in epidermal differentiation. **Rachel P Herndon**, Ambica Bhandari, Diana Dizon, Robert Chadwick, Jacob Biesinger, Xiaohui Xie and Bogi Andersen. Irvine, CA.

363 Mammalian aquaporin-3 and phospholipase D2 interact in Sf9 cells. **Haixia Qin** and **Wendy B Bollag**. Augusta, GA.


365* A splice site mutation in a skin-specific isoform of SMARCA1D causes hereditary adermatoglyphia. **Janna Nousseck**, Bettina Burger, Dana Fuchs-Telem, Mor Pavlovsky, Shlomit Fenig, Ofer Sarig, Peter Itin and Eli Sprecher. Tel Aviv, Israel and Basel, Switzerland.


367 An exceptional mutational event leading to Chanarin-Dorfman syndrome in a large consanguineous family. **Dana Fuchs-Telem**, **Liat Samuelov-Kinori**, Ofer Sarig and Eli Sprecher. Tel Aviv, Israel.

368 A mutation in LIPN, encoding epidermal Lipase N, causes a late onset form of autosomal recessive congenital ichthyosis. **Shirli Israeli**, Ziad Khamaysi, **Dana Fuchs-Telem**, Janna Nousseck, Reuven Bergman, Ofer Sarig and Eli Sprecher. Tel Aviv, Israel and Haifa, Israel.


370 Discovery of novel ingredients which stimulate the expression of sirtuins in human skin and skin cells. **Yingguo Ding**, Jianyou Wang, Jianjun Qiao, Xiahong Mao and Suqing Cai. Hangzhou, China.

371 Dystrophic epidermolysis bullosa compound heterozygote presents with immunofluorescence findings evocative of transient bullous dermatitis and causes no demonstrable toxicity in keratinocytes or mouse skin. **David L Chen**, Dan Zheng, David Giljohann, Hristo Iordanov, David L Chen, Dan Zheng, David Giljohann, Hristo Iordanov, Charlie Wilke, Xiao-Qi Wang, Chad A Mirkin and Amy S Paller. Chicago, IL and Evanston, IL.

372* Polyvalent siRNA-gold nanoparticles effectively traverse human epidermis and cause no demonstrable toxicity in keratinocytes or mouse skin. **David L Chen**, Dan Zheng, David Giljohann, Hristo Iordanov, Charlie Wilke, Xiao-Qi Wang, Chad A Mirkin and Amy S Paller. Chicago, IL and Evanston, IL.

373 A novel association between IL-9 and IL-9 receptor gene polymorphisms and atopic dermatitis in a Korean population. **Eugene Kim**, Jung-Hyun Namkung, Geon Tae Park, Hee Seung Yang and Jun-Mo Yang. Seoul, South Korea; Cleveland, OH and Providence, RI.

374 Combination of free-flow electrophoresis and interactomics to analyze the dysregulated proteins of fibroblasts from atopic dermatitis patients. **Yong-Doo Park**, Seoul, South Korea and Jerusalem, Israel.

375* Copy number variation within the filaggrin gene contributes to risk of atopic dermatitis. **Sara J Brown**, Karin Krobath, Aleleen Sandilands, Linda E Campbell, Elizabeth Pohler, Alan D Irvine, Heather J Cordell and W H Irwin McLean. Dundee, United Kingdom; Dublin, Ireland and Newcastle, United Kingdom.


379* Modulating keratinocyte intracellular Ca2+ via the sphingolipid pathway constitutes a novel therapeutic target for Darier’s Disease. **Anna Celli**, Donald Mackenzie, Yongjiao Zhai, Chia Ling Tu, Daniel Bieke, Walter Holleran, Yoshikazu Uchida and Theodora Mauro. San Francisco, CA.


382 Ichthyosis with conflits shows widespread somatic reversion via mitotic recombination at two distinct loci. **Keith A Choate**, Yin Lu, Jing Zhou, Murim Choi, Amy Paller, Peter Elias, Anita Farhi, Carol Nelson-Williams, Debra Crumrine, Mary Williams, Amy Nopper, Alanne Bree, Leonard Milstone and Richard Lifton. New Haven, CT; Chicago, IL; San Francisco, CA; Kansas City, MO and Houston, TX.

383* Polyvalent siRNA-gold nanoparticles effectively traverse human epidermis and cause no demonstrable toxicity in keratinocytes or mouse skin. **David L Chen**, Dan Zheng, David Giljohann, Hristo Iordanov, Charlie Wilke, Xiao-Qi Wang, Chad A Mirkin and Amy S Paller. Chicago, IL and Evanston, IL.

384 A novel association between IL-9 and IL-9 receptor gene polymorphisms and atopic dermatitis in a Korean population. **Eugene Kim**, Jung-Hyun Namkung, Geon Tae Park, Hee Seung Yang and Jun-Mo Yang. Seoul, South Korea; Cleveland, OH and Providence, RI.

385 Combination of free-flow electrophoresis and interactomics to analyze the dysregulated proteins of fibroblasts from atopic dermatitis patients. **Yong-Doo Park**, Seoul, South Korea and Jerusalem, Israel.


387 Non-aminoglycosides can restore type VII collagen function by overcoming premature stop mutations: Implications for DEB therapy. **J Cogan**, Y Hou, X Wang, L Du, R Gatti, A South, D Woodley and M Chen. Los Angeles, CA and Dundee, United Kingdom.

388 Effective preservation and skin delivery of biologically active cargo including live viruses by dissolvable microneedle arrays (MNAs). **Geza Erdos**, Cara Donahue, Yiying Zhang, B Ozdoganlar, A Gambotto and Louis D Falo. Pittsburgh, PA.

389 Knockdown of endogenous CD44 in human skin models using self-delivery siRNA administered by dissolvable microneedle arrays. **Maria F Lara**, Emilio F Gonzalez-Gonzalez, Robyn P Hickerson, Tychio J Speaker, Stella Chang, Manuel A Flores, Christopher H Contag, Devin Leake and Roger L Kaspar. Stanford, CA; Santa Cruz, CA and Lafayette, CO.

390 Interaction between psoriasis susceptibility loci ERAP1 and HLA-Cw6. **Trilokraj Tejasvi**, Phil E Stuart, Rajan P Nair, John J Voorhees and James T Elder. Ann Arbor, MI.
391 Correction of recessive dystrophic epidermolysis bullosa by homologous recombination. Li-Chen Wu, Chiao-Wang Sun, Craig A Elmets and Tim M Townes. Birmingham, AL.

392 Interferon regulatory factor 6 is necessary but not sufficient for keratinocyte differentiation. Leah C Biggs, Lindsey Rhea, Brian C Schutte and Martine Dunwald. Iowa City, IA and East Lansing, MI.

393 Bone mineral acquisition is meager in children with epidermolysis bullosa. Teresa Fu, Kyla Kent, Laura K Bachrach and Anna L Bruckner. Stanford, CA.


395 A transcriptional network for keratinocyte differentiation. Amelia Soto Hopkin, Qiang Liu, Alexander Iler and Bogi Andersen. Irvine, CA.

396** Epidermal tissue differentiation and lipid barrier function requires the long non-coding RNA LincRNA. Markus Kretz, Daniel Webster, Zurab Siprashvili, Ashley Zehnder, Cari Lee, Ross Fleckhart, Jennifer Chow, Grace Kim, John Rinn, Howard Chang and Paul Khavari. Palo Alto, CA.

397* Developing small molecule drugs to rescue nonsense mutations in disease-causing genes. Yoshifumi Nomura, Ulrike Gartner, Stuart McEloy, Leah Torre, Celine Pourreyron, Andrew P South, Gavin Wood, Andrew Woodland, Julie Frearson, Paul Wyatt and Irwin McLean. Dundee, United Kingdom.


402* Homozygosity of dominant missense mutations in keratin 17 leads to alopecia in addition to severe pachyonychia congenita. Neil J Wilson, C D Hansen, Monica L Cardenaz Perez, Anders Vahlquist, Mary E Schwartz and Frances J Smith. Dundee, United Kingdom; Salt Lake City, UT; Cali, Colombia and Uppsala, Sweden.

403 Induction of microRNA Mir-29 by UV irradiation down-regulates type I procollagen in fibroblasts in human skin. Leah C Biggs, Lindsey Rhea, Brian C Schutte and Martine Dunwald. Iowa City, IA and East Lansing, MI.


408 Targeting keratin 6a gene sequences using small oligonucleotides and PNAs. L Milstone, H Zambrano, A Majumdar, R Alam, H Li, A Zhathahweetl, P Glazer and M Seidman. New Haven, CT and Baltimore, MD.

409** Hairless is a H3K9 histone demethylase. Liang Liu, Hyunmi Kim, Alex Casta, Courtney Luke, Yuki Kobayashi, Lawrence S Shapiro and Angela M Christiano. New York, NY.


411* Copy number variation (CNV) on chr4q26-27 is associated with Cantu syndrome, with hypertrophicis and cardiomegaly. Mazen Kurbani, Chong Kim, Katherine Fantauzzo and Angela M Christiano. New York, New York and Sao Paulo, Brazil.

412 The role of Piasy in an imiquimod-induced psoriasis-like mouse model. Emily E Swanzey, Yun Wang, James Lagowski, Kevin Phillips, Yuangang Liu and Molly Kulesz-Martin. Portland, OR.

413 Feline lanceolate hair-like disease: Clinical, histological and ultrastructural features. Ana Rostacker, Christopher S Potter, Jiang Chen, Sonya Bettany, Kathleen A Silva, Lisa Specht, Ralf S Mueller and John P Sundberg. Munich, Germany; Bar Harbor, ME; Aurora, CO and Deisenhofen, Germany.

414 Visualization of functional nucleic acid delivery to mouse and human epidermis. Emilio González-González, Yeun Chu Kim, Tycho J Speacker, Robyn P Hickerson, Ryan Spitter, James Birchall, Maria Fernanda Lara, Rong-hua Hu, Yanhua Liang, Nancy Kirkiles-Smith, Mark R Prausnitz, Leonard M Milstone, Christopher H Contag and Roger L Kaspar. Stanford, CA; Atlanta, GA; Santa Cruz, CA; Cardiff, United Kingdom and New Haven, CT.


416 ΔNp63α directly regulates grainyhead-like 3 expression during epidermal development to form a functional barrier. Jianying Tao, Lei Zhang, Heather A Pangburn, Irene F Choi, Yu Deng, Aik-Choon Tan, Qinghong Zhang, Bogi Andersen and Dennis R Roop. Houston, TX; Aurora, CO and Irvine, CA.


418** Hereditary leukonychia/porcelain nails results from mutations in PLCD1 gene. Maija Kurz, Mazen Kurbani, Munenari Itoh, Lynn Petukhova, Yutaka Shimomura, Muhammad Wajid, Robert H Rice and Angela M Christiano. New York, NY and Davis, CA.

419 Mining for hair follicle genes at the interface of GWAS and linkage in alopecia areata. I Petukhova and A M Christiano. New York, NY.

420 Exploring the therapeutic potential of induced pluripotent stem cells for the treatment of epidermolytic hyperkeratosis and epidermolysis bullosa simplex. Ganna Bilousova, Jiang Chen and Dennis R Roop. Aurora, CO.


422** Gene targeting induced by triplex-forming oligonucleotides in skin. Yanhua Liang, Faye A Rogers, Peter M Glazer and Leonard M Milstone. New Haven, CT.


424** Trim32 role in the imiquimod-induced psoriasis-like phenotype in mice, through TLR7/8 receptor signaling to NF-kB. Yun Wang, James Lagowski, Emily Swanzey, Kevin Phillips, Yuangang Liu and Molly Kulesz-Martin. Portland, OR.
Hair and Cutaneous Development

All orals [designated with an asterisk (*)] listed below are presented in the Hair and Cutaneous Development Minisymposium on Thursday, May 5, 2011 from 2:00-5:30 p.m. in Wildflower A, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

Wound healing milieu protects against chemotherapy induced alopecia. Julia Escandon, Olivier Stojadinovic, Lucia M Mauro, Tongyu C Wikramanayake, Marjana Tomic-Canic and Joaquin J Jimenez. Miami, FL.

Spermidine promotes human hair follicle growth and modulates human epithelial stem cell functions. Yuval Ramot, Stephan Tiede, Tamas Biró, Mohd Hilmi Abu Bakar, Balasz Toth, Michael Philpott, Wesley Harrison, Koji Sugawara and Ralf Paus. Jerusalem, Israel; Lübeck, Germany; Debrecen, Hungary; Kelantan, Malaysia; London, United Kingdom and Toronto, ON.


Copy number variation analysis in PHACE syndrome. Dawn Siegel, David Gibbs, Ilona Frieden, Beth Drolet and Ulrich Broeckel. Milwaukee, WI.


Evaluation of siRNA delivery using an inducible reporter model. Robyn P Hickerson, Yuan Cao, Emilio Gonzalez-Gonzalez, Maria Fernanda Lara, Leonard M Milstone, Christopher H Contag and Roger L Kaspar. Santa Cruz, CA; Stanford, CA and New Haven, CT.

Suppressing AP1 factor signaling in suprabasal epidermis causes nuclear loricrin accumulation and a progressive symmetric erythrodermatodermatolytic phenotype. Ellen A Rorke, Gautam Adhikary and Richard L Eckert. Baltimore, MD.

Mutations in TGM1 in Ecuadorians with autosomal recessive congenital ichthyosis. H Zambrano, M Montvalton, A Farhi, Y Lu, C Yang, J Cabezas, R Lifton, L Milstone and K A Choate. New Haven, CT.

Copy number variation analysis in PHACE syndrome. Dawn Siegel, David Gibbs, Ilona Frieden, Beth Drolet and Ulrich Broeckel. Milwaukee, WI; Portland, OR and San Francisco, CA.

Wound healing milieu protects against chemotherapy induced alopecia. Julia Escandon, Olivera Stojadinovic, Lucia M Mauro, Tongyu C Wikramanayake, Marjana Tomic-Canic and Joaquin J Jimenez. Miami, FL.

Spermidine promotes human hair follicle growth and modulates human epithelial stem cell functions. Yuval Ramot, Stephan Tiede, Tamas Biró, Mohd Hilmi Abu Bakar, Balasz Toth, Michael Philpott, Wesley Harrison, Koji Sugawara and Ralf Paus. Jerusalem, Israel; Lübeck, Germany; Debrecen, Hungary; Kelantan, Malaysia; London, United Kingdom and Manchester, United Kingdom.

The murine areola: Postnatal model of specialized epidermal growth. Carlos D Offutt, Sachiko Koyama and John Foley. Bloomington, IN and Indianapolis, IN.


New strategy to modulate alopecia using a combination of 2 specific and unique ingredients. Estelle Loing, Michel Hochquaux and Isabelle Lacasse. Quebec, Canada and Ramonville St. Agne, France.

Hair shaft defects in the rough coat (rc) mice. Mariya Miteva, Angel G Leiva, Joaquin J Jimenez, Katalin Csiszar and Angela M Christiano. New York, NY.


Mesenchymal aging impairs hair follicle epithelial-mesenchymal interaction. Yi-Ching Huang, Kai-Hsin Huang, Chih-Chien Chan, Jin-Bon Hong, Ren-Yeu Tsai, June-Tai Wu and Sung-Jan Lin. Taipei, Taiwan and Douliu, Taiwan.
**460** Constitutive expression of Aryl hydrocarbon receptor in keratinocytes causes scarring alopecia. Sreejith P Panicker, Taneeta Ganguly, Ali A Lattif, Mary C Consolo, Masayuki Yamamoto, Kord Honda and Pratima Karnik. Cleveland, OH and Tsukuba, Japan.

**461** Positive and negative effects of RAS on Shh transcription are both mediated through ETV4. Anandaroop Mukhopadhyay, Suguna R Krishnaswami, Christopher C Zitron, Shantanu Kumar and Benjamin D Yu. San Diego, CA.

**462** Regulation of hair morphology by the dermal papilla. Woo Chi, David Enshel-Seiffers and Bruce A Morgan. Boston, MA.

**463** The role of p63 in hair follicle stem cell activation. Velmurugan Balaiya, Merlin ArieliDjohan, Peter J Koch and Maranel Koster. Aurora, CO.

**464** Vitamin D levels in alopecia areata (AA). Anna Levin, Ana Junqueira Bertin, Irving Katz, HongFei Guo, Qi Wang and Maria K Hordinsky. Kansas City, MO and Minneapolis, MN.

**465** Altered lymphatic architecture in the scalp skin from patients with extensive alopecia areata (AA). Sima Kayvand, Jaime Nugent, Maria Hordinsky, Kalpna Gupta and Marna Ericson. Minneapolis, MN.

**466** Role of aurora kinase-A in skin development. Jeffery K Tschachler, Jennifer Scherz, Heinz Fischer, Walther Parson and Erwin Jaeger. Vienna, Austria and Innsbruck, Austria.


**468** In situ labeling of DNA may be used to predict probability of success for forensic genotyping of hair. Leopold Eckhart, Sandra Szabo, Karin Jaeger, Jennifer Scherz, Heinz Fischer, Walther Parson and Erwin Tschachler. Vienna, Austria and Innsbruck, Austria.

**469** Bimatoprost, a prostamide F2α analogue used for glaucoma, stimulates scalp hair follicle growth via follicular receptors; Is this a new approach for alopecia? Karzan G Khidhir, Nilofer P Farjo, Bessam K Farjo, David F Woodward, Steven M Pickslay and Valerie A Randall. Bradford, United Kingdom; Manchester, United Kingdom and Irvine, CA.

**470** Dermal papilla cells promote trichogenesis in engineered skin substitutes. Penkanok Sriviriyanont, Elizabeth A Maier, Kaari A Lynch, Dorothy M Supp and Steven T Boyce. Cincinnati, OH.

**471** Use of a magnet-containing barbell in the tongue to operate the tongue drive system. Julia Minocha, Jaimee Holbrook, Behnaz Yousef, Jeonghee Kim, Xueliang Hua, Diane Rowles, Brenda Bartlett, Lisa Ruppert, Sean Johnson-Bice, Dennis West, Emir Veledar, Elliot Roh, Maysam Ghovanloo and Anne Laumann. Chicago, IL and Atlanta, GA.

**472** Coordination of Wnt signaling in epithelial and melanocyte stem cells in a shared niche initiates pigmented hair follicle regeneration. Piùl Rabbani, Makoto Takeo, Wei Chin Chou, Peggy Myung, Mark Taketo, Lynda Chiu, Marcus Bosenberg and Mayumi It&. New York, NY; Kyoto, Japan; Boston, MA; New Haven, CT and Cleveland, OH.

**473** The circadian transcriptome in skin is hair growth cycle dependent. Mikhail Geyfman, Qiang Liu, Alexander Ihler, Padhraic Smyth and Bogi Andersen. Irvine, CA.

**474** Epigenetic modulation of skin morphogenesis via global histone acetylation. Michael W Hughes, Ting-Xin Jiang, Sung-Jan Lin, Randy Widelitz and Cheng-Ming Chuong. Los Angeles, CA.

**475** Non-lesional atopic dermatitis skin is characterized by broad terminal differentiation defects and variable immune abnormalities. Suzanne Tintel, Mayte Suarez-Fariñas, Avner Shemer, Andrea Chiricozzi, Kristine Nogales, Irma Cardinale, Shenghui Duan, Anne Bowcock, James G Krueger and Emma Guttman-Yassky. New York, NY; Tel-Aviv, Israel; Rome, Italy and St. Louis, MO.

**476** Digital image speckle correlation (DISC) analysis for quantifying the effect and duration of cosmetic treatment with botulinum toxin (BT) type A. Divya Bhatnagar, Miriam Rafailovich, Nicole Conkling, Brett T Phillips, Sami U Khan, Duc T Bui and Alexander B Dagum. Stony Brook, NY.


**478** Association of the numbers of CD163+ macrophages in lesional skin and serum levels of soluble CD163 with disease progression of cutaneous T cell lymphoma. Makoto Sugaya, Tomomitsu Miyagaki, Hanako Ohmatsu, Hiraku Suga, Hiromichi Ka, Masahiro Kamata, Yayoi Tada and Shinichi Sato. Tokyo, Japan.

**479** Pralatrexate selectively induces apoptosis and synergizes with bevacacet through up-regulation of p53/Bax/PUMA in cutaneous T-cell lymphoma cells. Sophia Rangwala, Xiang Zhang, Chunlei Zhang and Madeleine Duvic. Houston, TX.

**480** NVP-BFH772, a potent inhibitor of VEGF receptor tyrosine kinases, is effective in models of skin inflammation. Joseph G Meingasser, Hermann Fahnderer, Elisabeth Kowalsky, Andreas Billic, Guido Bold, Ama Littlewood-Edens and Anton Stuetz. Vienna, Austria and Basel, Switzerland.

**481** Skin physiology in neonates and young children of different age groups compared to adults: A randomized study. Joachim W Fuhr, Nadège Lachmann, Caroline Raoudoun, Clarice de Belilovsk, Philippe Misika and Jean-Pierre Hachem. Berlin, Germany; Epernon, France; Paris, France and Brussels, Belgium.

**482** Use of a magnet-containing barbell in the tongue to operate the tongue drive system. Julia Minocha, Jaime Holbrook, Behnaz Yousef, Jeonghee Kim, Xueliang Hua, Diane Rowles, Brenda Bartlett, Lisa Ruppert, Sean Johnson-Bice, Dennis West, Emir Veledar, Elliot Roh, Maysam Ghovanloo and Anne Laumann. Chicago, IL and Atlanta, GA.


**484** Effect of extracorporeal photophoresis on dendritic cell populations in patients with Sézary syndrome and graft-versus-host disease and its correlation with the clinical response. Lisa Shue, Madeleine Duvic, Meghali Goswami, Amin Alousi, Chitra Hosing and Xiao N. Houston, TX.

**485** Persicaria hydropiper (L.) Spach and its flavonoid components, isouerctrin and isorhamnetin, activate the Wnt/b-catenin pathway and inhibit the adipocite differentiation of 3T3-L1 cells. Bora Kim, Young-Hoon Lee, Myoung Jin Kim, Su Min Lee, Juyong Yoon, Hyeon Yi Kim, Kyung Jeong Kim, Huy K Jo, Dong Lee and Kang-Yell Choi. Incheon, South Korea and Seoul, South Korea.


**487** IL-10 is a therapeutic target for intense pulsed light in acne vulgaris. Marisa Taylor and Maria Gonzalez. Cardiff, United Kingdom.

**488** Modulating survivin expression in the skin helps against UV damage. In vivo study. Yolene Guenf Ferreira, Laurine Bergeron, Alexia Lebleu, Gilles Oberto, Arlette Berghi, Karine Cucumel, Jean Marie Botto, Claude Dal Farra and Nouha Domiloge. Sophie Antipolis, France and Wayne, NJ.


**490** FDG PET/CT demonstrates increased vascular inflammation in patients with severe psoriasis. Nehal N Mehta, YiDing Yu, Babak Saboury, Negar Foroughi, Anna Raper, Amanda Baer, Rachel Ochotny, Parisaaram Krishnamoorthy, Jules Antigua, Abby Van Voorhees, Drew A Torigian, Nehal N. Portland, OR.

**491** Reversion of aging-related gene expression and clinical benefits of a Saccharina longicruris extract. Alain Riddle. St-Augustin, Canada.

**492** A pilot study of an oral phosphodiesterase inhibitor (apremilast) for atopic dermatitis. Aman Samrao, Trista Berry and Eric Simpson. Portland, OR.
493* Antagonism of p40 cytokines in psoriasis patients may promote paradoxical cardiovascular risk. Catrinia Ryan, Craig Leonard, James Krueger, Alexa Kimball, Bruce Strober, Kenneth Gordon, Richard Langley, Daniel Kaplan and Alan Menter. Dallas, TX; Saint Louis, MO; New York, NY; Boston, MA; Chicago, IL; Halifax, Canada and Minneapolis, MN.

494 Type I interferon-inducible genes are up-regulated in the peripheral blood of discoid lupus patients. Lin-chiang Tseng, Shurong Chang, Laurie S Davis, Quan Z Li, Chandra Mohan and Benjamin F Chong. Dallas, TX.

495 Oral administration of a hydrolphilic extract of Polypodium leucotomos for the prevention of polymorphic light eruption. Adrian Tanew, Sonja Radakovic, Salvador Gonzalez, Eduardo Reyes, Marina Venturini and Piergiacomo Calzavara-Pinton. Vienna, Austria; New York, NY; Alcala de Henares, Spain and Brescia, Italy.


498 The study about transmission of Staphylococcus aureus from mothers to children with atopic dermatitis. Jong-Rok Lee, So-young Na and Joo-young Roh. Incheon City, South Korea.

499 Quality of life in patients with uremic xerosis. Young Roh. Incheon City, South Korea.

500 The anti-inflammatory benefits of tridecylcarboxyethylate. Helen Meldrum, John Bajor, JoAnnAlice, VickieFox, JaimeO’Leary, Bijan Harirchian and Carol Boskoff. Trumbull, CT.


503 Positive results of a pivotal phase II trial testing a manufactured 0.02% mechlorethamine gel in mycosis fungoides (MF). Stuart Lessin, MadeleineDuvic, JoanGuitart, AmitPandya, Bruce Strober, Elise Olsen, Christopher Hurl, ElizabethKobler, Alain Rook, Ellen Kim, Mark Naylor, David Adelson, Alexa Kimball, Gary Wood, Hong Wu, Barry Walker and Youn Kim. Philadelphia, PA; Houston, TX; Chicago, IL; Dallas, TX; New York, NY; Durham, NC; Salt Lake City, UT; Oklahoma City, OK; Boston, MA; Madison, WI; Radnor, PA and Palo Alto, CA.

504 An investigator-initiated, open-label study evaluating the efficacy and safety of ustekinumab in patients with moderate to severe psoriasis. Andrew CWang, Todd A Kerensky, Shiuchung AU, Shimrat Yaniv, MelissaMichelon, IsraelArends, Nicole Dumont and AliceGBottlieb. Boston, MA; Bronx, NY and Sheva-Sheva, Israel.

505 Safety and efficacy of AN2728 ointment in a Phase 2b dose-ranging, bilateral study of mild-to-moderate plaque psoriasis. LeeJTZane, MirnaToledo-Bahena, MatildaHHughes and FredericAHeerinckx. Palo Alto, CA and Mexico City, Mexico.

506 Inhibition of cathelicidin processing enzymes as therapy for rosacea. KimberlyN Kanada, Teruaki Nakatsuji, EugeneY Huang and Richard LGallo. La Jolla, CA and San Diego, CA.

507 Treatment and outcomes in nephrogenic systemic fibrosis. KevinN Christensen and Mark RPittelow. Rochester, MN.


509 Using a RNAi-based screen to identify targets to be combined with BRAF inhibitors for treating melanomas. YiquanG Shellman, KatieAPartyka, ChrisPorter, MatiasCasas, Aik Choon Tan, JihyeKim, MarkGregory, ShiloSmith, MayumiFujita, JamesDeGregori and DavidANorris. Aurora, CO.


513 Withdrawn.


516 The immunomodulatory effect of intense pulsed light on acne vulgaris. MushereaM Ali, MariaL Gonzalez, FionaSRuge and RebeccaMPorter. Cardiff, United Kingdom.

517 Staphylococcus aureus colonization does not increase the rate of infection among psoriasis patients using biologic therapy. KellyGriffith-Bauer, CaraDVarley, KevinLWinthrop, AndrewBlauvelt, AtulADaradhar, AntonyBakke, RobertVegaandBenjaminDEst. Portland, OR.

518 Hair growth stimulation by mesenchymal stem cell-derived proteins. ChongHyunWon, JeongEunKim, SungeunChang, ChaeHwaKim, ByungSoonPark and WonSerkKim. Seoul, South Korea.


520* The histone deacetylase inhibitor, romidepsin, suppresses immune function of cutaneous T-cell lymphoma patients. MichaelJKelly-Sell, Bernice Benoit, Youn H Kim, Cameron Harrison, Katherine Sutherland, Louise CShowe, Maria Wysocka and AlainHRook. Philadelphia, PA and Palo Alto, CA.

521 Collagen deposition during the early phase of remodeling is similar in young and aged human skin. LauraRitté, JeffreySOrringer, DanaLSachs, JohnJVoorhees and GaryJ Fisher. Ann Arbor, MI.


524 The degree of correlation between the physician's global assessment (PGA) and psoriasis area and severity index (PASI) in randomized controlled trials of biologic agents for moderate to severe plaque psoriasis. AmandaH Robinson, Marisa Kardos and AlexandraB Kimball. Boston, MA.

525 Clinical efficacy of a new natural ingredient that simultaneously addresses multiple facets of acne pathogenesis. JohaneGuay and BrigittePage. Quebec City, Canada.

526* Blood involvement in stage IA mycosis fungoides by flow cytometry predicts or is associated with higher rate of progression. Rakhshandra Talpur, LotikaSingh, AmishiShah, SeemaDaulat, Ping Liu and Madeleine Duvic. Houston, TX.

527 Evaluation of itch and pain as presenting symptoms in non-melanoma skin cancer. KyleCMills, AshleyNFeneran, AlexZeitany, HongLTe, AndrewLee, OamarPSingueza, PhillipWilliford, DanielPearceandGillYosipovitch. Winston-Salem, NC.


529 Sensitization to benzalkonium chloride and benzethonium chloride. HarryDao, Susan TNedrost and ChrisFricker. Cleveland, OH and Akron, OH.
530 Croosswalk between UV-induced PI-3 kinase/Akt/mTOR and Fyn/RSK2 signaling pathways: Implications in skin carcinogenesis. Yira Bermudez, Steven P Stratton, Clara Curiel-Lewandrowski, James Warneke, George T Bowden, Zigang Dong, Ann M Bode, Craig A Hurst, Julie E Lang, David S Alberts and Janine G Einspahr. Tucson, AZ and Austin, MN.

531 Disposition, metabolism and mass balance of [14C]apremilast following oral administration. Matthew Hoffmann, Gondi Kumar, Peter Schafer, Dorota Czedzik, Lori Capone, Kei-Lai Fong, Zhe-ming Gu, Dennis Heller, Hao Feng, Sekhar Surapaneni, Oscar Laskin and Anfan Wu. Sumit, NJ; Berkeley, CA and Plainsboro, NJ.

532 Administration of vitamin K does not counteract the ectopic and sezary syndrome. Rudolf Schopf. Mainz, Germany.

534* T cells in the skin lesions of stage I mycosis fungoides show markedly suppressed cytokine production. Reit Watanabe, Marianne Tawa, Natalie Adams, Andrew Dorosario, David C Fischer, Thomas S Kupper and Rachael A Clark. Boston, MA.

535** Hemato poetic and mesenchymal stem cell transplantation for recessive dystrophic and junctional epidermolysis bullosa. Jakub Tolar, John A McGrath, Douglas R Keene, Maria Hordinsky, Mark J Osborn, Megan J Riddle, Ana Junqueira Bertin, David Woodley, Mei Chen, Alain Hovnanian, Katsuto Tamai, Bruce R Blazar and John E Wagner. Minneapolis, MN; London, United Kingdom; Portland, OR; Minneapolis, MN; Los Angeles, CA; Paris, France and Osaka, Japan.


537 Oral azathioprine therapy improves the clinical and cutaneous antimicrobial response in children with moderate to severe atopic dermatitis. Wynnis Tom, Paul Kotel, David Audish, Therese Cosan and Richard Gallo. San Diego, CA.


539 Anthralin successfully treats alopecia areata: A half-side comparison. Rudolf Schopf. Mainz, Germany.


541 11β-hydroxysteroid dehydrogenase type 1 increases with age and photoexposure in human skin ex vivo. Ana Tiganescu, Elizabeth A Walker, Andrew E Mayes and Paul M Stewart. Birmingham, United Kingdom and Bedford, United Kingdom.

542 Total skin electron beam and non-myeloablative allogeneic bone marrow transplantation in advanced mycosis fungoides and sezary syndrome. Lotika Singh, Chitra Hosing and Madeleine Ducic. Houston, TX.


544 Vitamin encapsulated nanosomes affect changes in Syk and Erk1/2 induced by skin UV exposure. Chetana Sunkari, Zhenyu Huang, Jouni Uitto and Elisabeth Papazoglou. Philadelphia, PA.

545* Early rituximab therapy of autoimmune blistering disease is associated with better clinical response. Luisa Lunardon, Kathleen J Tsai, Nicole Fett, John R Stanley, Donald E Tsai, Victoria P Werth and Aimee S Payne. Philadelphia, PA.

546 Functional MRI investigations of brain processing of itch sensation in end-stage-renal-disease patients with chronic pruritus. Alexandru D Papoiu, Robert Coghill, Liliana Banari, Robert Kraft and Gil Yosipovitch. Winston-Salem, NC.


548* Psoriasis family history portends earlier age of onset, higher incidence of psoriatic arthritis, and increased likelihood of biologic treatment in psoriasis patients. Neil Borka, Douglas Kast, Ivan Grozdev, Diana Carlson, Lauren Cao, Rivka Feig, Prasad Pujari, Brian Schmotzer, Denise Cabinie, Thomas McCormick, Kevin Cooper and Neil Korman. Cleveland, OH.

549** An investigator-initiated, phase II randomized, double-blind, placebo-controlled trial of GDC-0449 for prevention of BCCs in basal cell nevus syndrome (BCNS) patients. Jean Y Yang, Julian M Mackay-Wiggan, Michelle Aszterbaum, Joseyln Lindgren, Kris Chang, Carol Coppola, Angela Campbell, Anita Chanana, Jackleen Marij, David R Bickers and Ervin H Epstein. Oakland, CA; Redwood City, CA and New York, NY.


551 Age-matched multiplex analysis reveals global immune dysregulation in patients with CTCL. Larisa J Geskin, Oleg E Alikov, Diana E Linzer, Yan Lin, Louis D Falo and Ana E Loksihn. Pittsburgh, PA.

552* The comorbidities associated with serum vitamin D deficiency in veteran patients with psoriasis. Chen Young, Sayeeda Fatima, Benjamin Workman, Julie Kado and Leonard Savoy. Detroit, MI.

553 The population pharmacokinetics of briakinumab in subjects with moderate to severe plaque psoriasis. Matthew Hruska, Susan Paulson, Martin Kaul, Walid Awni and Peter Nooterheiser. Abbott Park, IL; Ludwigshafen, Germany; Abbott Park, IL and Ludwigshafen, Germany.


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**Immunology 1: Adaptive Immunity**

All orals [designated with an asterisk (*)] listed below are presented in the Immunology 1: Adaptive Immunity Minisymposium on Thursday, May 5, 2011 from 2:00-5:30 p.m. in Grand Canyon 9-10, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

555 Biosensor system to detect the tumor reactive population in bulk tumor infiltrating T cells. Takashi Inouzou, Ken-ichi Hanada, Steven A Rosenberg, Shinji Shimada and James C Yang. Chuo, Japan and Bethesda, MD.


558 A class 4 semaphorin, Sema4B regulates activation of basophils. Yukinobu Nakagawa, Hiroya Katamatsu, Ichiro Katayama and Atsushi Kumanogoh. Suita, Japan.

559 Epidermal CCR6+ y6 T Cells are essential producers of IL22 and IL17 in an IL23-mediated murine model of psoriasisform dermatitis. Tomotaka Mabuchi, Tomonori Takekoshi and Sam T Hwang. Milwaukee, WI.

560 A novel STAT3 inhibitor (r9-GRIM19) markedly enhances antitumor effects by Treg suppression when combined with Th1-type immunotherapy in melanoma-bearing mice. Takashi Okamoto, Naotaaka Shibagaki, Fumie Hanawa and Shinji Shimada. Yamamashi, Japan.
561* Production of SJS/TEN model mice using patients PBMCs and skin. Nao Saito, Riihiro Abe, Naoya Yoshioka, Hongjiang Qiao, Yasuyuki Fujita, Daichi Hoshina and Hiroshi Shimizu. Sapporo, Japan.


563* Granulocyte-derived dendritic cells (gDC) are specialized for bacterial antigen presentation. Shuo Geng, Hironori Matsushima, Paul Kotol, Richard Gallo and Akira Takashima. Toledo, OH and San Diego, CA.


565 Inhibition of the effector phase of contact hypersensitivity in sensitized mice via in vivo induction of Foxp3+ regulatory T cells by UV radiation. Agatha Schwarz, Fatemeh Navid, Tim Sparwasser, Björn Clausen and Thomas Schwarz. Kiel, Germany; Hannover, Germany and Rotterdam, Netherlands.


569 Epidermal growth factor receptor inhibitors augment the expression of MHC class I and class II genes.


572 Effects of repeated application of Dermatophagoides farinae (D.farinae) on the expressions of atopic dermatitis(AD)-like inflammatory skin mediators in NC/Nga mice. Ji-Yun Kim, Mi-Sook Jeong, Kui-Young Park, Kaspok Li and Seong-Jun Seo. Seoul, South Korea.

573 Effects of repeated formaldehyde (FA) exposure on atopic dermatitis (AD)-like immune responses in NC/Nga mice. Kaspok Li, Ji-Yun Kim, Mi-Sook Jeong, Dong-Ha Kim and Seong-Jun Seo. Seoul, South Korea.

574 Statins inhibit chemotactic interaction between CCL20 and CCR6 Sook Jeong, Dong-Ha Kim and Seong-Jun Seo. Seoul, South Korea.

575* Blocking galectin-1 ligand biosynthesis enhances immunity against South Korea and Daejeon, South Korea.

576* Effects of repeated application of Dermatophagoides farinae (D.farinae) antigen presentation of atopic dermatitis(AD)-like immune responses in NC/Nga mice. Ji-Yun Kim, Mi-Sook Jeong, Kui-Young Park, Kaspok Li and Seong-Jun Seo. Seoul, South Korea.

577 Effects of repeated formaldehyde (FA) exposure on atopic dermatitis (AD)-like immune responses in NC/Nga mice. Kaspok Li, Ji-Yun Kim, Mi-Sook Jeong, Dong-Ha Kim and Seong-Jun Seo. Seoul, South Korea.

578 Active transport of contact allergens modulates their activation of human monocyte derived dendritic cells. Hans F Merk, Ruth Heise, Hagen Ott, Katharina Czaja, Yvonne Marquardt, Jens M Baron and Claudia Skazik. Aachen, Germany.

579* IRF8 is an essential regulator of CD8 T cell effector function. Fumi Miyagawa, Hong Zhang, Keiko Ozato, Yutaka Tagaya and Stephen Katz. Bethesda, MD.

580 Human dermal-derived interfollicular mesenchymal stem cells drive the differentiation of naive helper T cells towards a regulatory phenotype without provision of costimulatory molecules. Karin Pfterer, Christine Vaculik, Gero Kramer, Dirk Strunk and Adelheid Elbe-Bürger. Vienna, Austria and Graz, Austria.


582 Signaling via neurokinin-1 receptor promotes type-1 DTH by abrogating IL-10 secretion in myeloid dendritic cells. Brian M Janselins, Tina L Sumpfer, Alicia R Mathers, Olga Tkacheva, William Shufesky, Adrian E Morelli and Adriana T Larragia. Pittsburgh, PA.

583* Autocrine TGFβ is required to prevent Langerhans cell migration. Aleh Bob, Botond Z Igyarto, Krystal M Haley, Ming O Li, Richard A Flavell and Daniel H Kaplan. Minneapolis, MN; New York, NY and New Haven, CT.

584* Skin-resident DC subsets promote distinct and opposing antigen-specific T helper responses. Botond Z Igyarto, Krystal Haleyi, Daniela Ortnet, Maryam Gerami-Nejad, Sandra M Zurawski, Gerard Malissen, Gerard Zurawski, Judith Berman and Daniel H Kaplan. Minneapolis, MN; Dallas, TX and Marseille, France.

585 Continuous antigen exposure elicits increased IL-10 production, but intermittent antigen exposure induces IL-4 production. Katsuhiko Yamana, Kenshiro Tsuda, Tomoko Akeda, Takehisa Nakani, Hiroshi Kitagawa, Masato Kakeda and Hitoshi Mizutani. Tsu, Japan.

586* Pregnane X Receptor (PXR) regulates cutaneous immunity. Matthias Schmutz, Andreas Elentner, Frank Gonzalez and Sandrine Dubrac. Innsbruck, Austria and Bethesda, MD.


588* Rhealba* oat plantlets interest in the management of atopic patients. Marie-Francoise Aries, Anne Mandeeu, Nathalie Castex-Rizzi, Jean-François Nicolas, Thomas Bieber, Marco Ambonati and Christine Coutanceau. Toulouse, France; Lyon, France and Bonn, Germany.

589* Langerin* Dermal DC, but not Langerhans cells, are required for effective CD8 mediated immune responses after skin scarification (S.S.) with Vaccinia virus (VACV). Julien Seneschal, Xiaodong Jiang and Thomas S Kupper. Boston, MA and Bordeaux, France.


592* Epidermal LC mediate constitutive stimulation of skin resident Tregs and thereby control the inadvertent activation of skin effector memory T cells (TRM) in normal skin. Julien Seneschal, Rachael A Clark and Thomas S Kupper. Boston, MA and Bordeaux, France.


594 MyD88 signaling in Langerhans Cells is required for efficient generation of TH17 cells, but not migration. Krystal Halevi, Botond Igyarto, Aleh Bob, Sakeen Kashem, Daniela Ortner, Dominik Schenten, Ruslan Medzhitov and DaniEH Kaplan. Minneapolis, MN and New Haven, CT.

595** IL-9 is a potent mediator of tumor immunity, and its expression is negatively regulated by the Th17 transcription factor RORγ. R Purwar, S Xiao, Y Takeda, W Elyaman, X Jiang, A Jetten, S Khoury, R Fuhlbirge, V Kuchroo and T Kupper. Boston, MA and Triangle Park, NC.
Correlation of intra- and extraepidermal CD8 T cell numbers with development of psoriatic epidermal pathology. Alexander Navarini, Giulia Tonel and Curdin Conrad. Zurich, Switzerland and Lausanne, Switzerland.

Tissue-based cytokine immunotherapy for skin cancer. Mary Lokuta, Allen Comer, Brenda Soto, Marie Vander Zanden, Michelle Bucholtz and Lynn Allen-Hoffmann. Madison, WI.

597 Ifng pathway signature dominates the gene expression profile of C3H/HeJ mouse model of alopecia areata. Sivam Harerel, Claire Higgins, Lynn Petukhova, John P Sundberg, Raphael A Clynes and Angela M Christiano. New York, NY and Bar Harbor, ME.


600 Withdrawn.

601* GILT modulates CD4+ T cell tolerance to the melanoma antigen TRP1. Matthew P Rausch, Todd C Metzger, Mark S Anderson and Karen T Hasting. Phoenix, AZ and San Francisco, CA.

602 Virus specific CD8 effector memory T cells (Tem) can be recruited to skin in the absence of CD4 T cells, but their persistence as long term resident memory T cells (Trm) is impaired. Xiaodong Jiang, James J Campbell, Luheng Liu, Zachary Beck, Noah tubo, Julien Senechal, Rahul Purwar, Tian Tiai and Thomas S Kupper. Boston, MA and Bordeaux, France.

603 Skin resident memory T cells (Trm) accumulate globally throughout skin in response to repetitive antigenic challenges. Xiaodong Jiang, Rachael A Clark and Thomas S Kupper. Boston, MA.

604 COASYRO loss in histopathological specimens of lymphomatoid papulosis. Derek V Chan, Savina Aneja, Kord S Honda and Kevin D Cooper. Cleveland, OH.


607 Interaction of regulatory T cells and tolerogenic CD11c+ dendritic cells prevents contact allergy in mice. Xiaodong Jiang, Rachael A Clark and Thomas S Kupper. Boston, MA.

624* Real-time kinetics and mechanism of IL-1β production during a skin infection. Xiangna Cai, Yuchun Luo, Claudia A Nold-Petry, Marcel F Ahrens, John S Cho, Jürgen Harder, Lloyd S Miller and Ehrhardt Prosch. Kiel, Germany and Los Angeles, CA.


629 Function of Hypoxia-Inducible Factor (HIF1α) in dendritic cells. Theresa Köhler, Boris Reizis, Randell Johnson, Jean Krutmann, Heike Weighardt and Irmgard Förster. Düsseldorf, Germany; New York, NY and San Diego, CA.

**Orals designated by two asterisks (**) will be presented during a Plenary Session.**

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**Immunology 2: Innate Immunity and Microbiology**

All orals [designated with an asterisk (*)] listed below are presented in the Immunology 2: Innate Immunity and Microbiology Minisymposium on Friday, May 6, 2011 from 2:00-5:30 p.m. in Wildflower A, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

613* Psoriatic patients show enhanced cathelicidin expression after injury and this is normalized by TNF-a inhibition. Jeremiah Miller, Tissa Hata, Paul Kotol, Michelle Jackson, Doru Alexandrescu, Filamer Kabigtin, Monika Gerber, Yuping Lai and Richard Gallo. La Jolla, CA.

614* Ultraviolet damage to non-coding RNA triggers skin inflammation. Jamie J Bernard, Christopher Cowing-Zitron, Teruaki Nakatsukai, Benjamin D Yu and Richard L Gallo. San Diego, CA.

615 Regulation of TSLP expression in the skin by the inflammasome and its impact on T cell fate. Sonia Schuepbach-Mallepell, Virginie Philippe, Stephanie Roques and Olivier Gaide. Geneva, Switzerland and Boston, MA.

616* Viral envelopes induce mast cell degranulation through sphingosine 1-phosphate receptor-2 pathway. Zhenping Wang and Anna Di Nardo. La Jolla, CA.

617* Neutrophils express IL-17 and form extracellular traps in cutaneous lupus erythematosus. Ritika Khandpur, Andrew M Lin, Cory J Rubin, MaryBeth L Riblet, Srilakshmi Valarawith, Eneida C Villanueva, Mariana J Kaplan and Allen T Bruce. Ann Arbor, MI.

618* Staphylococcus aureus infection in mouse skin induces antimicrobial peptide expression — the effect is partially regulated by IL-1. Kerstin Ahrens, John S Cho, Jürgen Harder, Lloyd S Miller and Ehrhardt Prosch. Kiel, Germany and Los Angeles, CA.

619 An orally delivered CCR5 inhibitor, Maraviroc prevents HIV-1 acquisition in Langerhans cells and transmission to CD4+ T cells. Youichi Ogawa, Tatsuyasu Kawamura, Andrew Blauvelt and Shinji Shimada. Yamanashi, Japan and Portland, OR.


621* The dermis is not sterile: Discovery of a microbiome within and beneath the epidermis. Teruaki Nakatsukai, Shangi B Jiang, Kimberly N Kanada and Richard L Gallo. San Diego, CA.


623 Scavenger receptor antagonism blocks HSV-1 infection of keratinocytes and limits cutaneous disease. Daniel T MacLeod, Kensi Yamasaki, Lester Kobzik and Richard L Gallo. La Jolla, CA; San Diego, CA and Boston, MA.

624* Real-time kinetics and mechanism of IL-1B production during a S. aureus skin infection in vivo. John S Cho, Frank Hebroni, Romelai Ramos, Hironori Matsushima, Akira Takashima and Lloyd Miller. Los Angeles, CA and Toledo, OH.


626* Modulation of Toll-like receptor responses by bone morphogenic protein 4 (BMP4). Navid Ezra, Miguel-Angel Gutierrez, Rosane Teles, Dennis Montoya, Maria Teresa Ochoa, Delphine Lee, Daniel Cruz and Robert Modlin. Los Angeles, CA.


630 DNase 2 degrades DNA on the skin surface. Heinz Fischer, Jennifer Scherer, Sandra Szabo, Michael Mildner, Charaf Benarafa, Alicia Torriglia, Erwin Tschachler and Leopold Eckhart. Vienna, Austria; Bern, Switzerland and Paris, France.


634 Distinct single chain fragment variable-gp-100 conjugates, targeting E-selectin expression in human squamous cell carcinomas. Melanie C Dispenza, Amanda M Nelson, Kathryn L Gilliland, Zhaoyuan Cong and John R Swerlick. Atlanta, GA and Decatur, GA.

635* IFN-α activation of a vitamin D-dependent antimicrobial response depends on skin pigmentation. Mario Fabri and Robert L Mollin. Los Angeles, CA and Cologne, Germany.


638 Reduced skin microbiome diversity is associated with atopic dermatitis severity and disease status. Heidi H Kong, Julia Oh, Elizabeth A Grice, Sean P Conlan, Clay Deming, Patrick R Murray, Maria L Turner and Julia A Scherz. Atlanta, GA and Decatur, GA.

639 Antimicrobial and anti-inflammatory effects of newly synthetic Cecropin A (1-8)-Magainin 2 (1-12) hybrid peptide (CA-MA) and its analogue P5 in vivo. Francis Segre. Bethesda, MD.

640** Interference with the IL-1 network leads to impaired cutaneous immunity in a RET melanoma model. Michael Maas, Sabine Ring, Alexander H Enk and Karsten Mahnke. Heidelberg, Germany.


642 Cutaneous TLR2 ligands induce systemic immune regulation mediated by myeloid-derived suppressor cells. Yuliya Skabytyska, Martin Koeberle, Ko Ming Chen, Susanne Kaesler and Tilo Biedermann. Tueringen, Germany.

643* Cutaneous papillomatosis due to a novel laboratory mouse papillomavirus (MUSPV) infection. John P Sundberg, Christopher S Poter, Kathleen A Silva, Arvind Ingle, J Jhoh, Shin J Gim and A B Jenson. Bar Harbor, ME; Louisville, KY and Mumbai, India.

644 Nitric oxide from myeloid-derived suppressor cells inhibits vascular formation in psoriasis. Andrew Chuning, Rosane Teles, Dennis Montoya, Stephan Krutzik, James Krahenbuhl, Dan Hsu, Fu Tong Liu, Euzenir N Sarno, Thomas H Rea, Robert L Modlin and Delphine J Lee. Los Angeles, CA; Baton Rouge, LA; Sacramento, CA and Rio de Janeiro, Brazil.

645 Irritant induced production of IL-6 is mediated via EGFR and NFkB response to bacteria in keratinocytes. Brenda J Curtis and Katherine A Radek. Chicago, IL.

646 Immune modulation by isoretinoin in vivo. Melanie C Dispenza, Amanda M Nelson, Kathryn L Gilliland, Zhaoyuan Cong and Diane M Thiboutot. Hershey, PA and Baltimore, MD.


649 Three dimensional (3D) reconstructed psoriatic tissue model. Seyoum Ayehunie, Crisly Hedin, Tim Landry, Amanda Wang, Maureen Spratt, Rachael Clark, Thomas Kupper and Mitchell Klausner. Ashland, MA and Boston, MA.

650 Galectin-3 regulates the innate immune response of human mononocytes. Andrew Chuning, Rosane Teles, Dennis Montoya, Stephen Krutzik, James Krahenbuhl, Dan Hsu, Fu Tong Liu, Euzenir N Sarno, Thomas H Rea, Robert L Modlin and Delphine J Lee. Los Angeles, CA; Baton Rouge, LA; Sacramento, CA and Rio de Janeiro, Brazil.

651* Non-neuronal cholinergic activation dampens the antimicrobial peptide response to bacteria in keratinocytes. Brenda J Curtis and Katherine A Radek. Chicago, IL.

652* Imiquimod-induced TLR7 signaling enhances repair of DNA Damage induced by UV in bone marrow-derived cells. Rita Fishelevich, Yuming Zhao, Papapat Tuchinda, Hannah Liu, T C Meng, Jim Lee and Anthony Gaspary. Baltimore, MD and Exton, PA.


654* Toll like receptor-4 (TLR4) deficiency prevents ultraviolet (UV) radiation induced cutaneous photocinimmersement by DNA repair mechanism. Nabiba Yusuf. Birmingham, AL.

655 The transmission of skin microflora from mother to infant. Kimberly Capone, Mark Green, Georgios N Stamatas and Janeta Nikolovski. Skillman, NJ and Issy-les-Moulineaux, France.

656 Haploid genetic screen identifies host factors important in Chlamydia trachomatis infection. David Rosmarin, Jan Carette, Thijn Brummelkamp and Hiddel Ploegh. Boston, MA.

Photobiology

All orals [designated with an asterisk (*)] listed below are presented in the Photobiology Minisymposium on Saturday, May 7, 2011 from 12:30-4:00 p.m. in Wildflower C, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.

657 UVA induces lesions resembling seborrheic keratoses in mice with keratinocyte-specific PTEN down-regulation. Mei Ming, Christopher R Shea, Li Feng, Keyoumars Soltani and Yu-Ying He. Chicago, IL and Research Triangle Park, NC.

658* Sunscreens may prevent UV-induced facial fat loss by blocking the production of IL-11. Wen-Hwa Li, Apostolos Pappas, Li Zhang and Druiie Cavender. Skillman, NJ.


660 The expression of methyleneetahydrofosalate reductase in the skin under low suberythemal doses of ultraviolet radiation B. Aleksandra Lesja, Karolina Wodz-Naskiewicz, Rafal Pawliczak, Michal Rogowski-Tylman, Anna Sysa-Jedrzejowska and Joanna Narbutt. Lodz, Poland.


662 Photoprotective effect of a Polypodium leucotomos extract against ultraviolet radiation on human peripheral blood monocytes. Zaida Moreno, David Diaz, Eduardo Reyes, Salvador Gonzalez and Melchor Alvarez-Mon. Alcalá de Henares, Spain; Madrid, Spain and New York, NY.

664 Quercetin inhibits UV irradiation induced inflammatory cytokine production in primary human keratinocytes by suppressing NF-κB pathway. Yuru Xu, Fabiana T Vicentini, Tianyuan He, Yuan Shao, Maria J Fonseca, Waldíce A Verri and Gary J Fisher. Ann Arbor, MI; São Paulo, Brazil and Londrina, Brazil.

665 Hesperidin promotes cytoculbante pyrimidine dimer repair in UVB exposed mice epidermis. Dan Luo and Bingrong Zhou. Nanjing, China.

666 Mitochondria protection against oxidative stress with a new dimethionine derivative. Mathilde Frechet, Lionel Valenti, Erika Lomonte, Frederic Maccario, Pascale Prouheze and Jean-François Nicolay. Monaco, Monaco.

667 Differential ku 70 expression patterns in t cells following photodynamic therapy with pc 4 and other apoptosis-inducing modalities. Paul C Jou, Minh Lam, Katalin Ferenczi, Nancy L Oleinick, Kevin D Cooper and Elma D Baron. Cleveland, OH and Farmington, CT.

668* Nucleotide excision repair of UV radiation photoproducts requires protein kinase C delta. Christopher Negro, Edward LaGory and Mitchell F Denning. Maywood, IL.


670* Molecular effects of fractional laser on photo-aged skin. Paul C Jou, Autumn Potaracke, Minh Lam, Elma D Baron and Jose Garcia-Zuazaga. Cleveland, OH.

671 Impact of UVA+ UVB full spectrum compared to UVA or UVB monowavelength on fibroblasts. Audrey Amoely, Sandrine Pinacolo, Rachel Chabert, Noelle Garcia, Frederique Portolan, Claude Dal Farra and Nouha Domloge. Sophia antipolis, France and Wayne, NJ.

672* Silymarin inhibits UV-induced immunosuppression through inactivation of CD4+ T cells and stimulation of CD8+ effector T cells. Mudit Vaid, Tripti Singh and SantishK Katiyar. Birmingham, AL.

673* UVB suppresses PTEN expression by upregulating miR-141 in HaCaT cells. Wei Li, Bingrong Zhou and Dan Luo. Nanjing, China.


678** Bath-psoralen UVA and narrow-band UVB reduce circulating Th17 cells and induce circulating regulatory T cells in psoriasis. Takuya Furushashi, Chiyo Saito, Kan Torii, Emi Nishida and Akimichi Morita. Nagoya, Japan.

679* The aryl hydrocarbon receptor (AhR) is a negative regulator of nucleotide excision repair (NER). Thomas Haarmann-Stemmann, Katrin Frauenstein, Thierry Douki, Marc Majora, Julia Tiggels, Susanne Grether-Beck, Charlotte Esser, Josef Abel, Ellen Fritsche and Jean Krutmann. Düsseldorf, Germany; Grenoble, France and Aachen, Germany.

680* UV modulation of subcutaneous fat metabolism. Eun Ju Kim, Yeon Kyung Kim, Ji Eun Kim, Sojeong Kim, Min-Kyoung Kim, Chi-Hyun Park and Jin Ho Chung. Seoul, South Korea.


682* Photoprotection against UVAR: Naturally occurring actives require a chemical structure that confers cell membrane lipid raft stabilizing properties. Mirko Bayer, Peter Proksch, Ingo Felsner, Heidi Brenden, Zippora Kohne, Rehab Walli, Tu Ngoc Duong, Jean Krutmann and Susanne Grether-Beck. Duesseldorf, Germany; Hilden, Germany and Hanoi, Viet Nam.

683 Apoptosis induced by photodynamic therapy with the photosensitizer Pc 4 in Candida albicans. Minh Lam, Paul C Jou, Christi L Malbasa, Ali A Lafft, Yoonie Lee, Pranab K Mukherjee, Nancy L Oleinick, Mahmoud A Ghanoun, Kevin D Cooper and Elma D Baron. Cleveland, OH.

684 Different microRNA-34a responses following p53 upregulation after exposure to ultraviolet radiation and ionizing radiation. Eirini Tavatsiokou, Tilman Sanchez-Elson, Chris Pickard and Eugene Healy. Southampton, United Kingdom.

685 Spectral imaging detects physiologic parameters that contribute to photoaging among twins. Christi L Malbasa, Edward M Baron, P Fu, M S Matsui, C Fthenakis, G Vanderover, P Cummings and K D Cooper. Cleveland, OH and Melville, NY.


687* Ultraviolet B radiation augments melanoma tumor growth through its ability to generate platelet-activating factor agonists. Ravi P Sahu, Sonia Da Silva, Christopher Touloukian, Raymond L Konger and Jeffrey B Travers. Indianapolis, IN.

688* Novel oxidatively-modified glycerophosphocholines with platelet-activating factor activity mediate UVB photosensitivity in xeroderma pigmentosum A deficiency. Jeffrey B Travers, Katheen A Harrison, Robert C Murphy and Raymond L Konger. Indianapolis, IN and Aurora, CO.

689 Reflectance analysis — A non-invasive method to study skin biochemical pathways in vitro and in vivo. Dina Turgeman, Marina Frusci-Zlotkin, Yoram Soroka, Francois M Breggeguy, Eyal Ben-Dor and Yoram Milner. Tel Aviv, Israel and Jerusalem, Israel.

690 Involvement of the epidermal platelet-activating factor receptor and cytoplasmic phospholipase A2 in UVB-mediated platelet-activating factor agonist production. Matthew J Turner, Mohammed Al-hassani, Aiden Thompson, Jeffrey T Travers, Raymond L Konger and Jeffrey B Travers. Indianapolis, IN.

691* Solar ultraviolet radiation induced decorin degradation renders type I collagen susceptible to cleavage by matrix metalloproteinase-1 in human skin. Yong Li, Wei Xia, Ying Liu, Yuan Shao, John J Voorhees and Gary J Fisher. Ann Arbor, MI.


693* Cysteine-rich Protein 61 (CCN1) mediates upregulation of IL-1β by UV irradiation in human skin fibroblasts. Zhaoping Qin, John J Voorhees, Gary J Fisher and Taihao Quan. Ann Arbor, MI.


695 A plant extract protects from cutaneous photaging via protection of collagen and elastin networks. Valérie Cenizo, Amandine Lhost, Sébastien Bonnet, Aurélie Boher, Christelle Gaillard, Nabil Abdul-Malak, Nicolas Bechetoille and Valérie André-Frey. Lyon, France.

696 The inside-out of photaging: UV-inducible mitochondrial DNA damage in C57BL/6 mouse skin. Yoram Soroka, Francois M Breggeguy,_Eyal Ben-Dor and Yoram Milner. Tel Aviv, Israel and Jerusalem, Israel.

697 Reevaluating the toxicity and mutagenicity of photoactivated Rose Bengal in Chinese hamster ovary cells. Leslie Hunter, Shuguang Wang, Jeffrey Wickliffe and Michael Wilkerson. Galveston, TX and New Orleans, LA.
Pigmentation and Melanoma

All orals [designated with an asterisk (*)] listed below are presented in the Pigmentation and Melanoma Minisymposium on Thursday, May 5, 2011 from 2:00-5:30 p.m. in Wildflower B, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.


706 Ultraviolet radiation from ambient light sources: Incandescent and compact fluorescent bulbs. Monica M Van Acker, T Munsie Chen and Quenby L Erickson. East Lansing, MI; Houston, TX and Saint Louis, MO.


708 Persistent pigment development is induced by a single day of recreational sun exposure in Hispanic children and is not predicted by native pigmentation levels. M Catherine Mack, Georgios N Stamatas, Nikiforos Kollas and Katharine M Martin. Skillman, NJ.

713 Green tea catechins inhibit melanoma cell migration and invasion by inhibiting the expression of cyclooxygenase-2 and NF-kB activation. Santosh K Kativar and Tripti Singh. Birmingham, AL.

714 87 cases of vulvar melanoma: The Duke experience. Janet Y Tcheung, Maria A Selim, Jennifer Marcello, Amy P Abernethy and Kelly C Nelson. Durham, NC.

715* Targeting deregulated HIF1 signaling in human melanoma by conditional HIF1 knockdown promotes tumor progression. Kevin T Nash, Angelo E Ayar, Monique E Verhaegen, Tim M Johnson and Ann J A Dlugosz. Ann Arbor, MI.


717 Examination of skin lightening ingredients via genomic microarrays. James V Gruber and Robert Holtz. South Plainfield, NJ and Jefferson, CO.

718 Possible involvement of shedding vesicle system in the melanosome transfer pathway. Hideya Ando, Yoko Niki, Masaaki Ito, Mary S Matsui, Daniel B Yarosh and Masamitsu Ichihashi. Kobe, Japan; Kyoto, Japan; Niigata, Japan and Melville, NY.

719 The comparative study in treatment of solar lentigines with trichloroacetic acid 40% vs. cryotherapy. Mohammad Goldust, Farideh Golforoushan, Mohammad Sadeghi and Elham Rezaee. Tabriz, Iran.


721* Linking UVB irradiation to pigmentation induction through FGFR2-STAT3-PAX3 signaling in melanocytes. Yinchuan Li, Liang Dong, Eric Pier and Rutao Cui. Boston, MA.


723* WIP1 coordinates melanogenic gene transcription and melanosome formation via TORC1 inhibition. Hsiang Ho, Rubina Kapadia, Sejad Al-Tahan, Safoora Ahmad and Anand Ganesan. Irvine, CA.

724** Myeloid derived suppressor cells (MDSC) express DC-HIL, which is responsible for their potent T cell-inhibitory and melanoma growth-promoting effects. Jin-Sung Chung, Kyoichi Tamura, Rohit R Sharma, Ponciano D Cruz and Kiyoshi Ariizumi. Dallas, TX.

725* The MEF2C transcription factor regulates melanocyte development, interacts directly with SOX10 and is a candidate gene for Waardenburg Syndrome. Maria L Wei, Pooja Agarwal, Michael Verzi, Thuyen Nguyen, David McCulloch, Shan-Mei Xu, Eudokia Doddou, Joshua Anderson and Brian Black. San Francisco, CA.

726* MAPK pathway regulates the expression of p18INK4c and p21Waf1/Cip1 cyclin-dependent kinase inhibitors through the AP-1 transcription factor. Ahmad Jalili, Christine Wagner, Kirsten D Mertz, Mikhail Pashchenkov, Georg Stengl, Sridhar Ramaswamy and Stephan N Wagner. Vienna, Austria; Moscow, Russian Federation and Boston, MA.

727** CCR7-expressing B16 melanoma cells down-regulate interferon (IFN)-y-mediated inflammation and increase lymphangiogenesis in the tumor microenvironment. Tomonori Takekoshi, Lei Fang, Ryan Sells and Sam T Hwang. Milwaukee, WI and Bethesda, MD.


730 Inhibition of pigmentation by keratinocyte-derived sFRP2. Xu Jie Hee, Mi Yoon Kim, Jimi Yoon, Jin Gu Kim, Young Lee, Chang Deok Kim, Jeung-Hoon Lee and Tae-Jin Yoon. Daejeon, South Korea and Jinju, South Korea.

731 NRF2 regulates melanogenesis by activating the P38/Akt pathway. Jung-Min Shin, Jin-Hwa Kim, Hwa Mi Kim, Jin Gu Kim, Myung Im, Chang Deok Kim, Young-Soon Seo, Jeung-Hoon Lee and Tae-Jin Yoon. Daejeon, South Korea and Jinju, South Korea.

733 Genetically determined ABCB5 functionality correlates with pigmentmentation phenotype and melanoma risk. Jennifer Y Lin, Mingfeng Zhang, Tobias Schatton, Brian J Wilson, Allireza Allo, Abrar A Qureshi, Markus H Frank, Jiiali Han and Natasha Y Frank. Boston, MA.

734 A label-free indicator for melanoma cells based on the CH2-stretch ratio. Sander van den Driesche, Wojciech Wittarski, Silvia Pastorekova, Heimo Breiteneder, Michael J Vellekoop and Christine Hafner. Vienna, Austria; Bratislava, Slovakia and St. Poelten, Austria.

735 Novel seco steroids regulate melanocytic activity. A Slominski, Z Janietovic, R C Tuckey, W Li, T Kim, A Posthuma Bardsley, MA Zmiijewski, T Sweatman, J Chan, J Zjawiony, M N Nguyen, T C Chen, M F Holick and D Miller. Memphis, TN; Crawley, Australia; Gdansk, Poland; University, MS and Boston, MA.

736 Image color analysis method to quantify clinical efficacy of skin lightening product. Di Ou and John V Sicemra. Ada, MI.

737 Vascular features of cutaneous metastastic melanoma. Amanda Raymond, Caterina Longo, Giovanni Pellacani, Janet Y Tcheung, Puja Puri, Angelica Selim, Douglas Tyler and Kelly C Nelson. Durham, NC and Modena, Italy.


739 Melanocytic nevus nests unexpectedly contain two cell populations — nevus cells and myeloid (CD11c+) dendritic cells. Nicholas Gulatt, Felix Kiecker, N S McNutt, Hiroshi Mitsui and James G Krueger. New York, NY and Berlin, Germany.


742 Melanoma classification based on dermoscopic features. Margaret I Sanchez, Harold S Rabinovitz, Margaret Oliviero and James M Grichnik. Miami, FL.


744 Meiosis protein REC8 is expressed in melanoma. Andrea S Oriolo, Margaret I Sanchez, Jie Li, Zhao-Jun Liu and James M Grichnik. Miami, FL.


746* MSH protects from H2O2-induced loss of melanocyte dendricity via activation of mTOR pathway. Fuquan Lin, Jerry Wan, Regis Chang, Gabriella Brum, Nicola Koutttab, Aie Xu and Yinhsheng Wan. Providence, RI; Boston, MA and Hangzhou, China.

747 MSH does not affect TNFα-induced NFκB activation in cultured human melanocytes. Jerry Wan, Fuquan Lin, Regis Chang, Nicola Koutttab, Aie Xu and Yinhsheng Wan. Providence, RI; Hangzhou, China and Boston, MA.


750* Identification of EMMRPRI as a novel receptor for S100A9: Its involvement in melanoma metastasis. Toshikito Hidoba, Shoko Miyamoto, Masakiyo Sakaguchi, Akira Motoyama, Mami Yamamoto, Ryoji Tsuboi and Nam-ho Huh. Yokohama, Japan; Okayama, Japan and Tokyo, Japan.


752* The effect of E-cadherin loss on melanoma progression and markers of epithelial-mesenchymal transition in a conditional mouse model. Lara E Bosenbaum, William E Damsky and Marcus Bosenberg. New Haven, CT.


754 Alternation of CYP27B1 expression during progression of pigmented lesions in the skin. Anna A Brozyn, Wojciech Jozwicki and Andrzej Slominski. Bydgoszcz, Poland and Memphis, TN.

755 2,4,6-octanetrienoic acid promotes melanogenesis in normal human melanocytes, through PPAR-gamma. E Flori, A Mastrofrancesco, D Kovacs, G Giuliani, S Briganti and M Picardo. Milan, Italy and Rome, Italy.

756 Withdrawn.

757* SIRT1 is overexpressed in human melanoma cells and its inhibition imparts anti-proliferative effects. Minakshi Nihal, Mary Ndiaye, Gary S Wood and Nihal Ahmed. Madison, WI.

758 Tumor stage-specific detection of ABCB5+ circulating malignant melanoma-initiating cells. Allireza Allo, Jennifer Y Lin, Jie Ma, Brian J Wilson, Natasha Y Frank, Jun Zhou, Frank S Hodi and Markus H Frank. Boston, MA.


760 Chronic inflammatory demyelinating polyneuropathy (CIDP) heralding metastatic melanoma. F R Vleugels, S J Huang, K M Collin, T J Hollman and J Y Lin. Cincinnati, OH and Boston, MA.

761* Epigenetic control of gene expression programs in the skin: Distinct nuclear architecture and higher order chromatin organization of cell-type specific genes in melanocytes and keratinocytes. Michal R Gdula, Tatyana Y Sharova, Michael Y Fessing and Andrej A Sharov. Boston, MA and Bradford, United Kingdom.


763 Temozolomide induces strong, synergistic apoptosis of melanoma cells when combined with the BH3-mimetic ABT-737 in a Noxa-dependent fashion. Steven N Reuland, Nathaniel B Goldstein, Katie A Partyko, Shih Smith, Mayumi Fujita, Yiqun G Shellman and David A Norris. Aurora, CO.


765 Ultraviolet A radiation plays a role in the pathogenesis of malignant melanoma through involvement of the Warburg effect in skin reconstructs. York P Kemansini, Evi Maczy, Martin Ricken, Friedegund Meier and Mark Berneburg. Tuebingen, Germany.

766* Correlation between VEGF-A, VEGFR1, PAK, and pERK expression in melanocytic lesions and degree of histological atypia. Clara Curiel-Lewandrowski, Lindsay LaPresto, Chengcheng Hu, Kathlynn Saboda, Mary Krutzsch, Ray Nagle and Janine Einspahr. Tucson, AZ.

767 SOX2 promotes human melanoma cell invasion. Sasa Giroud, Alvaro Laga, Qian Zhan and George F Murphy. Boston, MA.

768* Deficiency in IL-23, but not IL-12, promotes increased initiation and growth of melanocytic nevi induced by exposure to carboxinogenic polyaromatic hydrocarbons. Tahseen Nast, Nabiha Yusuf, Laura Timares and Craig Elmets. Birmingham, AL.
Identification of microRNA-211 targets in melanocytes and their role in melanoma. Nityanand Maddodi, Shajil Madhavan, Sulochana Devi, Micheal Newton and Vijayasaradhi Setaluri. Madison, WI.

Reconstructed human skin model to study melanoma at different stages of progression. Mitchell Klausner, Yulia Kaluzhny and Seyoum Ayeahunie. Ashland, MA.


BMP-Smad signaling pathway inhibits proliferation and migration of melanoma cells. Nicha Rungsimanond, Tatyana Sharova and Andrey Sharov. Boston, MA.


Ellagic acid induces apoptosis and cell cycle arrest through upregulation of p53. James D Jensen, Yuchun Luo, Weimin Liu, Robert P Dellavalle and Mayumi Fujita. Aurora, CO and Denver, CO.

Dual role of apoptosis-associated speck-like protein containing a CARD (ASC) in human melanoma cells. Weimin Liu, Charles A Dinarello, David A Norris and Mayumi Fujita. Aurora, CO.

The redox antimarial dihydroartemisinin targets human melanoma cells but not melanocytes through induction of NOXA (PMAIP2)-dependent apoptosis that occurs as a function of intracellular labile iron availability. Christopher M Cabello, Sarah D Lamore, Warner B Bair and Georg T Wondrak. Tucson, AZ.

**Tissue Regeneration, Stem Cells and Wound Healing**

All orals [designated with an asterisk (*)] listed below are presented in the Tissue Regeneration, Stem Cells and Wound Healing Minisymposium on Friday, May 6, 2011 from 2:00-5:30 p.m. in Wildflower B, JW Marriott Desert Ridge. Orals designated by two asterisks (**) will be presented during a Plenary Session.


**782** Regulation of keratinocyte migration and cutaneous wound epithelialization by cholinergic nerves involves modulation of integrin expression. Alexander I Chernyavsky, Mina Kalantari-Dehaghi, Courtney Phillips, Steve Marchenko and Serge A Grando. Irvine, CA.

**783** The bulge area is the major hair follicle source of nestin-expressing cells which can repair the spinal cord compared to the dermal papilla. Fang Liu, Aislada Uchugonova, Hiroaki Kimura, Chuansan Zhang, Ming Zhao, Lei Zhang, Karsten Koenig, Jennifer Duong, Ryochiaki Ak, Norimitsu Saito, Sumiyuki Mili, Yasuyuki Amoh, Kensei Katsuoka and Robert M Hoffman. San Diego, CA; Shanghai, China; Saarbruecken, Germany; Kanazawa, Japan and Kanagawa, Japan.

**784** Skin-derived progenitors as a source of progenitors for cutaneous nerve regeneration. Sanjay Pradhan, Chiachi Liu and Lu Q Le. Dallas, TX.

**785** Compromised TGF-β signaling, reduced wound healing and spontaneous skin erosions characterize CLIC4-/- mice. Padmakumar Velayutham Chellamani, Mary Ann Stepp, Kelsey Speer, Samuel Dengler, John Edwards, Vincenzo Coppola, Lino Tessarollo and Stuart Yusp. Bethesda, MD; Washington DC; Frederick, MD and Chapel Hill, NC.

**786** Hair follicle neogenesis induced by fibroblast-like skin tumor cells from patients with tiberoous sclerosis complex. Shaowei Li, Rajesh L Thangapazham, Jia-an Wang, Sangeetha Rajesh, Tzu-Cheq Kao, Leonard Sterling, Joel Moss and Thomas N Darling. Bethesda, MD.

**787** Increased REG3A/Regl by Th17 cytokines promotes keratinocyte proliferation after skin injury. Yuping Lai, Dongjiang Li, Ziwei Jiang, Changwei Li, Tian Zhang, Kotol Paul, Tissa R Hata, Morizane Shin and Richard L Gallo. Shanghai, China and San Diego, CA.

**788** Management of irratent dermatitis by promoting a rapid and effective epidermal healing. Caroline Baudouin, Stéphanie Brédif, Franch Menu and Philippe Msika. Epernon, France.


**790** p16 influences the aging phenotype in the living skin equivalent. Jean Adamus, Jianmeng M Lee, Sirpa Aho, Helen Meldrum and Carol Bosko. Trumbull, CT.


**792** Durable and reproducible murine splinted excisional wound model. Marie S Tuttle, Lisa A Long, Nicole L Ward and Mahmoud A Ghannoum. Cleveland, OH.

**793** Survivin expression level and intra-cellular localization is regulated by the nuclear export protein Exportin 1 mediating nucleo-cytoplasmic repartition in keratinocytes. Florian Labarrade, Jean Marie Botto, Claude Dal Farra and Nouha Domlorge. Sophia Antipolis, France and Wayne, NJ.

**794** Epidermolysis bullosa simplex keratinocyte stem cells exhibit a growth disadvantage compared to normal keratinocyte stem cells. Li Li, William Buitrago, Jiang Chen and Dennis R Roop. Aurora, CO; Houston, TX and Beijing, China.


**796** Platelet rich plasma promotes wound healing process through increased epidermal healing. Jae Cho, Sung Kim and Kyu Lee. Daegu, South Korea.

**797** Quantitative hair plucking reveals stem cell activation is modulated by interactions with extra-follicular macro-environment. Chih C Chen, Maxim Plikus and Cheng M Chuong. Los Angeles, CA and Taipei, Taiwan.


**799** Autonomic endooele treatment system combined with topical retinoid shows better regenerative effects and fewer epidermal side effects compared with each individual treatment. Jong-Kyung Kim, Hwa-Young Park, Miyoung Jung and Eung Ho Choi. Wonju, South Korea and Yanggu, South Korea.

**800** Targeted genetic alteration in hyaluronan catabolism delays wound healing in mice. Jun Muto, Aaron F Carlin, Andrea Garcia, Ajit Varki and Richard L Gallo. La Jolla, CA.

**801** Liver X receptor (LXR) activator reverses psychological stress-induced delays in cutaneous wound healing by inhibiting the activity and/or expression of 11β-hydroxysteroid dehydrogenase type 1. Jong-Kyung Youm, Peter M Elias, Kyungho Park, Aegean Chan, Yoshikazu Uchida and Water M Holleran. San Francisco, CA.
802 Comparative analysis of two different polyurethane foam types for the use in NPWT treatment in a porcine wound healing model. Pierre Croizat, Axel Eckstein, Ulrich Fink and Hans Smola. Heidenheim, Germany and Cologne, Germany.

803 Bioactivity of immobilized growth factor with polyelectrolyte multilayer assembly on keratinocytes. Farzam Gorouhi, Nihaar Shah, Brittany L Wood, Ankit Agarwal, Jill Covert, Nicholas L Abbott, Christopher J Murphy and Rivkah R Isseroff. Davis, CA and Madison, WI.


805 TSC2-null fibroblast-like cells recreate multiple niches in grafted skin equivalents including dermal papilla. Rajesh Thangapazham, Shaowei Li, Ji-an Wang, Sangeetha Rajesh, Joel Moss and Thomas N Darling. Bethesda, MD.

806 Inhibiting beta-adrenergic receptors improves wound healing of combined injury of thermal burning and irradiation. Hsin-ya Yang, Huguetta Albrecht, David Rocke and Rivkah Isseroff. Davis, CA.


808 Epiderphine mediates impairment of wound healing via IL-6 dependent neutrophil trafficking. Min-Ho Kim, Scott I Simon and Roslyn R Isseroff. Davis, CA.

809 High cell density markedly increases resistance to oxidative stress. Jonathan Yahay, Dennis Kim, Lauren Maloney, Fubao Lin, Monica McTigue and Richard A Clark. Stony Brook, NY.

810 Application of light emitting diode and Celecoxib (Cox-2 inhibitor) for and decreases lipolysis in murine and human cells. Tan, Pierce Chow, Shabbir M Moochhala and Jia Lu. Singapore, Singapore.


812 Maintenance of the epidermal progenitor state requires the long non- coding RNA Linc8D. Cari Lee, Markus Kretz, Daniel Webster, Ross Flockhart, Kun Qu, Angela Mah, Cody Aros, Howard Chang, John Rinn and Paul Khavari. Palo Alto, CA.

813 Epidermal IGF-1 receptor is important in the maintenance of bulge stem cell and their response to skin wounds. Edwige Rey, Fabien Linay, Martin Holzenberger, Michele Oster, Selim Aractingi and Kiarash Khosrotehrani. Hebron, Australia and Paris, France.


815 Induction of regulatory dendritic cells by artificial extracellular matrices used as coatings for biomaterials. Sandra Franz, Inka Forstreuter, Vera Hintze, Stephanie Möller, Dieter Schramwbe, Matthias Schnabelrauch and Jan C Simon. Leipzig, Germany; Dresden, Germany and Jena, Germany.

816 Microbiome and corresponding cutaneous defense response in chronic diabetic wounds. Elizabeth A Grice, Evan S Snitkin, Laura J Yockey, Dustin Tsen, Y Kuang, J Fan, M Chen, D Woodley and W Li. Los Angeles, CA.


818 Transregulation of α2 and α3 integrin expression by α6β4 integrin in migrating keratinocytes. Kristina Klugs, Susan Hopkinson and Jonathan Jones. Chicago, IL.

819 The collagen XVII-binding protein actin-4 regulates the directed migration of keratinocytes. Kevin J Hamill, Omar Skalli and Jonathan C Jones. Chicago, IL and Memphis, TN.


821* Evidence for the existence of phenotypically distinct progenitors in epiderm. Alexandra Charruyer, Lauren R Strachan, Stephen Fong, Lili Yue, Malik Abdul, Maria L Mancianti and Ruby Ghadially. San Francisco, CA and Berkeley, CA.


824 Laminin 332 expression and processing is altered in irritated and wounded skin. A Lopez, E B Olaus, N E Duncan, A Schock, W Kittopongdaja, B L Fish, J E Moulder and Z Lazenby. Milwaukee, WI.

825 Comparative analysis of two different polyurethane foam types for skin wound healing that are absent from conventional growth factor treatments. D Sabu, C Cheng, F Tsen, Y Kuang, J Fan, M Chen, D Woodley and W Li. Los Angeles, CA.


827 Elastin is essential for vascular development — A zebrafish model. Qiao Li, Adele Donahue, Hye Young Choi and Jouni Uitto. Philadelphia, PA and Seoul, South Korea.


829 Human keratinocytes have an immediate, autonomous response to injury that upregulates protective and immune-enhancing gene expression, Milene K Krispin, Erika Billick, Hiroshi Mitsui, Hideki Fujita, Mayte Suarez-Fariñas and James G Krueger. New York, NY.


832 PPARγ-TGFβ-AGTR1 nexus modulates epithelial-mesenchymal transition and collagen synthesis in scarring alopecia. Sreejith P Panicker, Taneea Ganguly, Mary C Consolo, Kord Honda and Pratima Karnik. Cleveland, OH.


834 Oxidative damage fails to correlate spatiotemporally with cell necrosis during burn injury progression. D Kim, S Lanier, S McClain, F Lin, M Tonnensen, A Singer and R Clark. Stony Brook, NY and Northport, NY.

835 PPARy-TGFβ-AGTR1 nexus modulates epithelial-mesenchymal transition and collagen synthesis in scarring alopecia. Sreejith P Panicker, Taneea Ganguly, Mary C Consolo, Kord Honda and Pratima Karnik. Cleveland, OH.


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839 Oxidative damage fails to correlate spatiotemporally with cell necrosis during burn injury progression. D Kim, S Lanier, S McClain, F Lin, M Tonnensen, A Singer and R Clark. Stony Brook, NY and Northport, NY.

Agents that help protect epidermal stem cells from photodamage or induce differentiation. Jon E Anderson, Young C Anderson, Robert Holtz, Stefan Borchert and Harald van der Hoeven. Allendale, NJ; Lakewood, CO and Berlin, Germany.


Effects of claudin-2 knockdown in cultured keratinocytes. Steffani Ellis, Benny Lu and Dale Telgenhoff. Fort Worth, TX.


Wound healing matrix displays properties useful for graft revascularization. Warren K Hoeffler and Chris Tapia. Sausalito, CA.
**KEYWORD INDEX**

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-D Organ model</td>
<td>016, 148, 278, 283, 298, 347, 649, 696, 766, 784, 790, 841, 845</td>
</tr>
<tr>
<td>Acantholysis</td>
<td>064, 082, 379, 701</td>
</tr>
<tr>
<td>Acne</td>
<td>078, 331, 386, 441, 487, 501, 516, 525, 639, 646, 647, 648</td>
</tr>
<tr>
<td>Actin</td>
<td>190, 822</td>
</tr>
<tr>
<td>Actinic keratoses</td>
<td>538</td>
</tr>
<tr>
<td>Activation</td>
<td>557</td>
</tr>
<tr>
<td>Adherens junction</td>
<td>190, 195, 398</td>
</tr>
<tr>
<td>Adhesion molecule</td>
<td>176, 189, 267, 303, 352, 625</td>
</tr>
<tr>
<td>Adipocytes</td>
<td>447, 485</td>
</tr>
<tr>
<td>Adipokines</td>
<td>201, 523</td>
</tr>
<tr>
<td>Adult T-cell leukemia/lymphoma</td>
<td>627</td>
</tr>
<tr>
<td>Advanced glycation end products</td>
<td>002</td>
</tr>
<tr>
<td>AKT, mTOR</td>
<td>113, 133, 139, 156, 170, 530, 723, 731</td>
</tr>
<tr>
<td>AKT, Warburg</td>
<td>766</td>
</tr>
<tr>
<td>Alopecia</td>
<td>023, 042, 059, 060, 430, 436, 442, 443, 453, 457, 459, 460, 462, 464, 467, 469, 533, 539, 598</td>
</tr>
<tr>
<td>Androgen/androgen receptor</td>
<td>471</td>
</tr>
<tr>
<td>Angiogenesis</td>
<td>177, 179, 186, 480, 812, 845</td>
</tr>
<tr>
<td>Animal models for disease</td>
<td>036, 051, 118, 179, 435, 436, 460, 561, 579, 701, 786, 789, 805, 837</td>
</tr>
<tr>
<td>Antigen presenting cell</td>
<td>558, 583, 601</td>
</tr>
<tr>
<td>Anti-microbial peptide</td>
<td>264, 288, 289, 290, 311, 319, 506, 537, 618, 627, 639, 651, 834</td>
</tr>
<tr>
<td>Antioxidant</td>
<td>268, 287, 292, 317, 495, 664, 666, 686, 731</td>
</tr>
<tr>
<td>Apoptosis</td>
<td>112, 137, 170, 479, 576, 683, 704, 709, 763, 764, 780</td>
</tr>
<tr>
<td>Aquaporin</td>
<td>363</td>
</tr>
<tr>
<td>Artificial skin and skin equivalent</td>
<td>441, 831</td>
</tr>
<tr>
<td>Aryl hydrocarbon receptor</td>
<td>275, 305, 328, 460</td>
</tr>
<tr>
<td>Atherosclerosis</td>
<td>490</td>
</tr>
<tr>
<td>Atomic force microscopy</td>
<td>048</td>
</tr>
<tr>
<td>Atopy</td>
<td>214, 350</td>
</tr>
<tr>
<td>Autoantibody</td>
<td>039, 048, 050, 056, 062, 064, 080, 193, 502, 611</td>
</tr>
<tr>
<td>Autoantigen</td>
<td>062</td>
</tr>
<tr>
<td>Autoimmunity</td>
<td>002, 020, 041, 042, 052, 053, 056, 059, 060, 064, 079, 202, 250, 453, 464, 533</td>
</tr>
<tr>
<td>Autophagy</td>
<td>113, 304, 705</td>
</tr>
<tr>
<td>B cell</td>
<td>545</td>
</tr>
<tr>
<td>B7</td>
<td>732</td>
</tr>
<tr>
<td>Bacteria</td>
<td>563, 621, 636, 638, 655</td>
</tr>
<tr>
<td>Bacterial infections</td>
<td>184, 624</td>
</tr>
<tr>
<td>Barrier function</td>
<td>010, 029, 184, 266, 269, 279, 280, 285, 291, 293, 302, 318, 320, 340, 345, 346, 350, 366, 481, 570, 630, 799, 834</td>
</tr>
<tr>
<td>Basal cell carcinoma</td>
<td>088, 105, 109, 116, 125, 133, 148, 156, 164, 169, 205, 213, 223, 458, 549, 554</td>
</tr>
<tr>
<td>Biofilm</td>
<td>792</td>
</tr>
<tr>
<td>Biologic therapy</td>
<td>026, 493, 504, 517, 524</td>
</tr>
<tr>
<td>Biomarker</td>
<td>104, 150, 536, 551, 667, 743, 760, 767, 772, 773</td>
</tr>
<tr>
<td>Blistering</td>
<td>058, 070, 794</td>
</tr>
<tr>
<td>Blood vessel</td>
<td>818</td>
</tr>
<tr>
<td>BMP signaling</td>
<td>131, 432</td>
</tr>
<tr>
<td>Bone health</td>
<td>393</td>
</tr>
<tr>
<td>BRAF</td>
<td>726</td>
</tr>
<tr>
<td>Bullous disease</td>
<td>035, 039, 043, 046, 053, 056, 194, 371, 387</td>
</tr>
<tr>
<td>Burns, vasomotor activity, adrenergic receptors</td>
<td>806, 818, 819, 837, 838</td>
</tr>
<tr>
<td>Caderhin</td>
<td>380, 753</td>
</tr>
<tr>
<td>Calcium</td>
<td>180, 314, 379, 836</td>
</tr>
<tr>
<td>Calpain</td>
<td>007</td>
</tr>
<tr>
<td>CAMP</td>
<td>081, 515, 748</td>
</tr>
<tr>
<td>Cancer</td>
<td>090, 107, 114, 132, 161, 166, 195, 249, 256, 446, 461, 653, 716, 774, 778</td>
</tr>
<tr>
<td>Cancer genetics</td>
<td>085, 126, 129, 136, 144, 175, 259</td>
</tr>
<tr>
<td>Cancer prevention</td>
<td>149, 213, 240, 254, 259</td>
</tr>
<tr>
<td>Cancer stem cells</td>
<td>096, 159, 733, 759</td>
</tr>
<tr>
<td>Carcinogenesis</td>
<td>089, 093, 099, 104, 105, 141, 154, 160, 162, 239, 657</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>031, 523</td>
</tr>
<tr>
<td>Cardiovascular risk</td>
<td>023, 061, 211, 220</td>
</tr>
<tr>
<td>Caspase-14</td>
<td>283, 325</td>
</tr>
<tr>
<td>Cathelicidin</td>
<td>563, 613</td>
</tr>
<tr>
<td>Cell adhesion</td>
<td>180, 200, 279, 338, 401, 587, 704, 821</td>
</tr>
<tr>
<td>Cell biology</td>
<td>093, 189, 260, 356, 447, 723, 762, 774</td>
</tr>
<tr>
<td>Cell cycle control</td>
<td>132, 151, 153, 157</td>
</tr>
<tr>
<td>Term</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Cell motility</td>
<td>145, 199, 821, 822, 828, 842</td>
</tr>
<tr>
<td>Chemical carcinogenesis</td>
<td>097, 123</td>
</tr>
<tr>
<td>Chemokine</td>
<td>012, 025, 054, 092, 109, 130, 167, 273, 574, 581</td>
</tr>
<tr>
<td>Chemoprevention</td>
<td>152, 163, 549, 773</td>
</tr>
<tr>
<td>China</td>
<td>369</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>172, 315, 659</td>
</tr>
<tr>
<td>Chromosomal passenger complex</td>
<td>793</td>
</tr>
<tr>
<td>Chronic wound</td>
<td>625</td>
</tr>
<tr>
<td>Cilia</td>
<td>444</td>
</tr>
<tr>
<td>Circadian gene</td>
<td>324, 473</td>
</tr>
<tr>
<td>Claudin</td>
<td>842</td>
</tr>
<tr>
<td>Clinical research</td>
<td>212, 251, 292, 297, 410, 476, 488, 496, 500, 507, 515, 519, 520, 531, 535, 536, 539, 545, 550, 648, 802</td>
</tr>
<tr>
<td>Clinical trials</td>
<td>483, 503, 505, 524, 525, 549, 736</td>
</tr>
<tr>
<td>Co-culture system</td>
<td>294</td>
</tr>
<tr>
<td>Collagen</td>
<td>039, 183, 191, 194, 196, 197, 198, 354, 387, 403, 535, 670, 691, 835</td>
</tr>
<tr>
<td>Complementary/alternative medicine</td>
<td>536</td>
</tr>
<tr>
<td>Connective tissue</td>
<td>514, 802, 830</td>
</tr>
<tr>
<td>Contact dermatitis</td>
<td>529, 578, 645</td>
</tr>
<tr>
<td>Contact hypersensitivity</td>
<td>005, 565, 570, 607, 608, 642</td>
</tr>
<tr>
<td>Cortico steroids</td>
<td>205, 327</td>
</tr>
<tr>
<td>Cost effectiveness</td>
<td>226, 496</td>
</tr>
<tr>
<td>Cutaneous T cell lymphoma</td>
<td>074, 112, 122, 137, 147, 165, 168, 478, 479, 486, 503, 520, 526, 534, 540, 542, 551, 593, 604, 611, 641</td>
</tr>
<tr>
<td>Cyclobutane pyrimidine dimers</td>
<td>686</td>
</tr>
<tr>
<td>Cyclooxygenase</td>
<td>713</td>
</tr>
<tr>
<td>Cytochrome P450</td>
<td>399, 586, 755</td>
</tr>
<tr>
<td>Cytokine</td>
<td>036, 046, 386, 522, 534, 566, 585, 615, 618, 672, 680, 693</td>
</tr>
<tr>
<td>Cytoskeleton</td>
<td>279, 338</td>
</tr>
<tr>
<td>Cytotoxicity</td>
<td>533, 809</td>
</tr>
<tr>
<td>Darier's disease</td>
<td>379, 398</td>
</tr>
<tr>
<td>Decorin</td>
<td>185, 691</td>
</tr>
<tr>
<td>Defensin</td>
<td>008, 288</td>
</tr>
<tr>
<td>Dendritic cell</td>
<td>024, 030, 037, 052, 055, 063, 067, 484, 557, 562, 563, 571, 578, 582, 587, 588, 589, 606, 607, 608, 612, 629, 634, 739, 816, 839</td>
</tr>
<tr>
<td>Dermal papilla, tissue engineering</td>
<td>452, 462, 470, 783</td>
</tr>
<tr>
<td>Dermatitis herpetiformis</td>
<td>009</td>
</tr>
<tr>
<td>Dermatologic surgery</td>
<td>482, 719</td>
</tr>
<tr>
<td>Dermatopathology</td>
<td>045, 127, 166, 604</td>
</tr>
<tr>
<td>Dermatopontin</td>
<td>185</td>
</tr>
<tr>
<td>Dermis</td>
<td>187, 191, 201, 580</td>
</tr>
<tr>
<td>Desmocollin</td>
<td>047, 182, 195</td>
</tr>
<tr>
<td>Desmoglein</td>
<td>047, 058, 080, 138, 182, 188</td>
</tr>
<tr>
<td>Desmosome</td>
<td>176, 192, 200, 338, 410</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Term</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desquamation</td>
<td>285, 321</td>
</tr>
<tr>
<td>Development biology</td>
<td>261, 322, 323, 432, 449, 466, 571, 725, 830</td>
</tr>
<tr>
<td>Diabetes</td>
<td>201, 204, 206, 243, 302, 798</td>
</tr>
<tr>
<td>Diagnostic tool</td>
<td>448</td>
</tr>
<tr>
<td>DNA methylation</td>
<td>089, 115, 776</td>
</tr>
<tr>
<td>DNA mutation</td>
<td>162</td>
</tr>
<tr>
<td>DNA repair</td>
<td>086, 126, 153, 174, 377, 538, 652, 668, 679</td>
</tr>
<tr>
<td>Early detection</td>
<td>217, 775</td>
</tr>
<tr>
<td>Ectodomain shedding</td>
<td>181</td>
</tr>
<tr>
<td>Eczema</td>
<td>337</td>
</tr>
<tr>
<td>Effectiveness research</td>
<td>207</td>
</tr>
<tr>
<td>EGCG</td>
<td>713</td>
</tr>
<tr>
<td>EGFR</td>
<td>098, 108, 803</td>
</tr>
<tr>
<td>EGF-like growth factors</td>
<td>262</td>
</tr>
<tr>
<td>Elastin</td>
<td>695, 830</td>
</tr>
<tr>
<td>Electron microscopy</td>
<td>309, 353, 791</td>
</tr>
<tr>
<td>Endothelial cell</td>
<td>812</td>
</tr>
<tr>
<td>Eosinophil</td>
<td>043, 070</td>
</tr>
<tr>
<td>Epicutaneous immunization</td>
<td>584</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>042, 204, 206, 210, 211, 215, 216, 220, 224, 233, 234, 235, 236, 238, 240, 245, 246, 248, 249, 253, 257, 258, 548, 707</td>
</tr>
<tr>
<td>Epidermal growth factor receptor</td>
<td>025, 082, 111, 134, 157, 172, 173, 489, 569</td>
</tr>
<tr>
<td>Epidermal permeability barrier</td>
<td>298, 300, 309, 335, 353, 362</td>
</tr>
<tr>
<td>Epidermis</td>
<td>175, 265, 282, 304, 306, 322, 324, 332, 333, 334, 343, 359, 362, 389, 406, 416, 432, 466, 474, 499, 596, 696, 785, 788, 824</td>
</tr>
<tr>
<td>Epidermolysis bullosa</td>
<td>196, 354, 371, 374, 391, 393, 794, 807</td>
</tr>
<tr>
<td>Epigenetics</td>
<td>334, 373, 409, 474, 738, 776</td>
</tr>
<tr>
<td>Extracellular matrix</td>
<td>183, 190, 434, 752</td>
</tr>
<tr>
<td>Extracorporeal photopheresis</td>
<td>484</td>
</tr>
<tr>
<td>Fas</td>
<td>122</td>
</tr>
<tr>
<td>Fibroblast</td>
<td>094, 145, 296, 381, 385, 671, 781, 781, 796</td>
</tr>
<tr>
<td>Fibroblasts, mariponics</td>
<td>294</td>
</tr>
<tr>
<td>Fibronectin</td>
<td>199</td>
</tr>
<tr>
<td>Fibrosis</td>
<td>077, 183</td>
</tr>
<tr>
<td>Filaggrin</td>
<td>269, 280, 300, 325, 355, 366, 375</td>
</tr>
<tr>
<td>Fluorescence</td>
<td>084, 414</td>
</tr>
<tr>
<td>Fungal therapy, fungus</td>
<td>510, 511, 512, 627, 683, 703</td>
</tr>
<tr>
<td>G protein</td>
<td>230</td>
</tr>
<tr>
<td>Galectin-3</td>
<td>650</td>
</tr>
<tr>
<td>Gamma delta T cell</td>
<td>006, 275, 559, 620</td>
</tr>
</tbody>
</table>
Gangliosides
Gene array analysis
Gene expression
Gene regulation
Gene therapy
Genetic disease
Genodermatosis
Genome-wide association study
Genomics
Genotyping
Glycosylation
GM-CSF
Graft versus host disease
Growth factor/growth factor receptors
Hair
Hairless gene, epithelial-mesenchymal transition
HDACs
Health services research
Heat shock protein
Herbal medicine
Herpes simplex
Herpes zoster
Histone deacetylase inhibitor
HIV
HLA
Homeobox genes
Human papillomavirus
Hyaluronic acid
Hyperkeratosis
Hypertrichosis
Hyposia
Ichthyosis
IgA
IgE
IL-17
IL-17R
IL-23
Imaging
Immune evasion
Immunoglobulin
Immunology
Induced pluripotent stem cells
Infant skin
Infection
Infectious disease
Inflammase
Inflammation
Innate immunity
INOS
Insulin-like growth factor
Integrin
Interferon
Interleukin
Involucrin
Ionizing radiation
Itch
Kalikrein, cathelicidin, innate immunity, Calcium, skin barrier, transepidermal water loss
Keloid
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Keratinocyte
Knock-out mice
Lactate
Laminin
Langerhans cell
Laser
Laser capture microdissection
Leptospirosis
Linkage association/analysis
Lipids
Loricin
<table>
<thead>
<tr>
<th>Term</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pigmentation</td>
<td>071, 259, 472, 661, 710, 712, 721, 728, 730, 731, 733, 736, 754, 756, 769</td>
</tr>
<tr>
<td>PKC, SOD3, Stat1</td>
<td>096</td>
</tr>
<tr>
<td>Platelet</td>
<td>818</td>
</tr>
<tr>
<td>Platelet-activating factor</td>
<td>687, 688, 690</td>
</tr>
<tr>
<td>Platelet-derived growth factor</td>
<td>121, 177, 407</td>
</tr>
<tr>
<td>Polyamines</td>
<td>405, 431</td>
</tr>
<tr>
<td>Polymerase chain reaction</td>
<td>468</td>
</tr>
<tr>
<td>PPAR</td>
<td>318</td>
</tr>
<tr>
<td>Prevalence</td>
<td>231</td>
</tr>
<tr>
<td>Proliferation</td>
<td>155, 171, 173, 609</td>
</tr>
<tr>
<td>Prostaglandins</td>
<td>069, 071, 469</td>
</tr>
<tr>
<td>Protease</td>
<td>035, 038, 040, 340</td>
</tr>
<tr>
<td>Protease inhibitors</td>
<td>401</td>
</tr>
<tr>
<td>Protein kinase</td>
<td>111, 544, 668</td>
</tr>
<tr>
<td>Proteomics</td>
<td>522, 551, 705</td>
</tr>
<tr>
<td>Pruritus</td>
<td>178, 252, 260, 492, 499, 546</td>
</tr>
<tr>
<td>Psychological stress, glucocorticoid, 11β-hydroxysteroid dehydrogenase type 1</td>
<td>541, 801</td>
</tr>
<tr>
<td>Psychology</td>
<td>218, 225, 246</td>
</tr>
<tr>
<td>Quality care</td>
<td>255, 749</td>
</tr>
<tr>
<td>Quality of life</td>
<td>218, 242, 252, 253, 499</td>
</tr>
<tr>
<td>Quality of life measures</td>
<td>258</td>
</tr>
<tr>
<td>Ras</td>
<td>098, 134, 530</td>
</tr>
<tr>
<td>Receptor</td>
<td>160, 586, 751</td>
</tr>
<tr>
<td>Reflectance confocal microscopy, dermoscopy</td>
<td>297, 677, 737, 839</td>
</tr>
<tr>
<td>Reliability</td>
<td>433</td>
</tr>
<tr>
<td>Reprogramming</td>
<td>826</td>
</tr>
<tr>
<td>Retinoid</td>
<td>646, 799</td>
</tr>
<tr>
<td>Retinoid receptors</td>
<td>278, 641</td>
</tr>
<tr>
<td>Retinol</td>
<td>544</td>
</tr>
<tr>
<td>Risk factor</td>
<td>231, 706</td>
</tr>
<tr>
<td>Risk perception</td>
<td>237</td>
</tr>
<tr>
<td>RNA-seq</td>
<td>022, 448</td>
</tr>
<tr>
<td>Rosacea</td>
<td>057, 069, 222, 506</td>
</tr>
<tr>
<td>Scleroderma</td>
<td>077</td>
</tr>
<tr>
<td>Screening</td>
<td>226, 250, 255, 370, 656, 780</td>
</tr>
<tr>
<td>Sebaceous glands</td>
<td>459</td>
</tr>
<tr>
<td>Sebocytes</td>
<td>307, 327, 329, 331, 441</td>
</tr>
<tr>
<td>SEER database</td>
<td>217</td>
</tr>
<tr>
<td>Serum</td>
<td>250</td>
</tr>
<tr>
<td>Sezary syndrome</td>
<td>129, 484, 526</td>
</tr>
<tr>
<td>Shh, FGF2</td>
<td>164</td>
</tr>
<tr>
<td>Signal transduction</td>
<td>100, 158, 260, 356, 357, 358, 360</td>
</tr>
<tr>
<td>SirNA</td>
<td>424</td>
</tr>
<tr>
<td>Siruvin</td>
<td>086, 137, 170, 364, 370, 758</td>
</tr>
<tr>
<td>Skin cancer</td>
<td>095, 103, 120, 136, 152, 163, 208, 209, 226, 254, 258, 463, 527, 597, 706, 749, 760, 771</td>
</tr>
<tr>
<td>Skin color</td>
<td>235, 247, 635</td>
</tr>
<tr>
<td>Skin explant model</td>
<td>689, 829</td>
</tr>
<tr>
<td>Skin graft</td>
<td>786, 805, 824</td>
</tr>
<tr>
<td>Skin imaging</td>
<td>078, 163, 221, 346, 497</td>
</tr>
<tr>
<td>Smoking</td>
<td>227, 514</td>
</tr>
<tr>
<td>Srcasm</td>
<td>140</td>
</tr>
<tr>
<td>Staphylococcus</td>
<td>517, 528, 629, 637</td>
</tr>
<tr>
<td>STAT3</td>
<td>011, 272, 281, 560</td>
</tr>
<tr>
<td>Stevens-Johnson syndrome</td>
<td>561</td>
</tr>
<tr>
<td>Stratum corneum</td>
<td>353, 355, 630</td>
</tr>
<tr>
<td>Streptococcus</td>
<td>631</td>
</tr>
<tr>
<td>Stress</td>
<td>030, 185, 287, 293, 327, 364, 671, 698, 808, 834</td>
</tr>
<tr>
<td>Subcutaneous fat</td>
<td>658, 680, 700, 815</td>
</tr>
<tr>
<td>Sunlight</td>
<td>254, 708</td>
</tr>
<tr>
<td>Sunscreen</td>
<td>658</td>
</tr>
<tr>
<td>Superantigen</td>
<td>168</td>
</tr>
<tr>
<td>Syndecan</td>
<td>037</td>
</tr>
<tr>
<td>T cell</td>
<td>006, 008, 024, 312, 534, 543, 547, 555, 556, 564, 579, 581, 584, 589, 590, 592, 593, 595, 596, 601, 609, 610, 635, 641, 644, 667, 672, 732</td>
</tr>
<tr>
<td>T regulatory cell</td>
<td>565, 570, 577, 587, 607, 678</td>
</tr>
<tr>
<td>Telomere, ginsenoside-Rg1, DNA oxidative damage</td>
<td>238</td>
</tr>
<tr>
<td>Terminal differentiation, epidermal barrier</td>
<td>344, 475, 491</td>
</tr>
<tr>
<td>TGF-beta</td>
<td>001, 109, 516, 583, 785, 835</td>
</tr>
<tr>
<td>TGF-beta receptor</td>
<td>001, 175</td>
</tr>
<tr>
<td>Th1/Th2</td>
<td>135, 572, 573, 615, 681</td>
</tr>
<tr>
<td>Th17</td>
<td>504, 559, 574, 678, 787</td>
</tr>
<tr>
<td>Therapeutics</td>
<td>057, 179, 326, 480, 493, 502, 503, 537, 837</td>
</tr>
<tr>
<td>Tight junction</td>
<td>189, 277, 298, 347, 637</td>
</tr>
<tr>
<td>Tissue model</td>
<td>162, 308, 771, 795</td>
</tr>
<tr>
<td>Term</td>
<td>Pages</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>TNF-alpha</td>
<td>063, 519, 575, 613, 694, 747</td>
</tr>
<tr>
<td>Tobacco smoke, Th17</td>
<td>568</td>
</tr>
<tr>
<td>Toll-like receptors</td>
<td>295, 614, 622, 642, 652, 654</td>
</tr>
<tr>
<td>Toxic epidermal necrolysis</td>
<td>561</td>
</tr>
<tr>
<td>Toxicology</td>
<td>308, 697</td>
</tr>
<tr>
<td>TRAIL, TLR1/2</td>
<td>763</td>
</tr>
<tr>
<td>Transcription</td>
<td>394</td>
</tr>
<tr>
<td>Transcription factors</td>
<td>124, 146, 268, 316, 317, 351, 378, 392, 455, 456, 461, 715, 725</td>
</tr>
<tr>
<td>Transgenic mice</td>
<td>124, 169, 405, 532</td>
</tr>
<tr>
<td>Transplant</td>
<td>844</td>
</tr>
<tr>
<td>Transplant patients</td>
<td>542, 628, 669, 825</td>
</tr>
<tr>
<td>Tumor infiltrating lymphocyte</td>
<td>555, 595, 727, 739</td>
</tr>
<tr>
<td>Tumor model</td>
<td>135</td>
</tr>
<tr>
<td>Tumor progression</td>
<td>108, 115, 150, 167, 564, 715, 724, 753</td>
</tr>
<tr>
<td>Tumor suppressor gene</td>
<td>361, 657</td>
</tr>
<tr>
<td>Tumorigenesis</td>
<td>091, 451, 744</td>
</tr>
<tr>
<td>Tyrosinase</td>
<td>710, 711, 717</td>
</tr>
<tr>
<td>Tyrosine kinase</td>
<td>140, 188</td>
</tr>
<tr>
<td>Ulcer</td>
<td>789</td>
</tr>
<tr>
<td>UVA1, narrow-band UVB, tolerance</td>
<td>707</td>
</tr>
<tr>
<td>Vaccine</td>
<td>149, 591, 605, 634, 741</td>
</tr>
<tr>
<td>Vasculitis</td>
<td>012</td>
</tr>
<tr>
<td>Virus</td>
<td>165, 616, 623, 640, 653</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>208, 245, 290, 378, 446, 464, 552, 631, 635, 661, 735, 755</td>
</tr>
<tr>
<td>Vitiligo</td>
<td>020, 601, 720, 722, 730, 746</td>
</tr>
<tr>
<td>Wnt signaling, beta-catenin</td>
<td>450, 485</td>
</tr>
<tr>
<td>Wnt-signaling</td>
<td>261, 330</td>
</tr>
<tr>
<td>Wound healing</td>
<td>072, 075, 204, 303, 346, 347, 430, 521, 636, 782, 785, 787, 789, 792, 796, 798, 800, 801, 802, 803, 804, 806, 808, 810, 812, 814, 817, 819, 820, 822, 823, 828, 829, 832, 836, 841, 842, 843, 845</td>
</tr>
<tr>
<td>Wrinkle</td>
<td>229, 476, 491, 831</td>
</tr>
<tr>
<td>Xeroderma pigmentosum</td>
<td>114, 144, 377, 378, 740</td>
</tr>
<tr>
<td>Zebrafish</td>
<td>415, 427</td>
</tr>
</tbody>
</table>
Conflict of Interest Disclosure Key

A - Advisory Board
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G - Grant or Research Support
H - Honoraria
I - Investigator
P - Co-inventor on Patent Held by University of Corporation
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<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns, Erin M.</td>
<td>692</td>
</tr>
<tr>
<td>Burns, Erin</td>
<td>120</td>
</tr>
<tr>
<td>Burrows, Michelle</td>
<td>820</td>
</tr>
<tr>
<td>Burrows, Nigel</td>
<td>175</td>
</tr>
<tr>
<td>Busam, K.</td>
<td>760</td>
</tr>
<tr>
<td>Baster, Kesha</td>
<td>235</td>
</tr>
<tr>
<td>Butman, John</td>
<td>126</td>
</tr>
<tr>
<td>Byamba, Dashkhumbe</td>
<td>574</td>
</tr>
<tr>
<td>Byekova, Yevgeniya A.</td>
<td>156</td>
</tr>
<tr>
<td>Byun, Hee Jin</td>
<td>659</td>
</tr>
<tr>
<td>Cabello, Christopher M.</td>
<td>780</td>
</tr>
<tr>
<td>Cabezás, J.</td>
<td>426</td>
</tr>
<tr>
<td>Cabral, R. M.</td>
<td>400, 401</td>
</tr>
<tr>
<td>Cabral, Rita M.</td>
<td>176</td>
</tr>
<tr>
<td>Cai, Lining</td>
<td>097</td>
</tr>
<tr>
<td>Cai, Siuqing</td>
<td>369</td>
</tr>
<tr>
<td>Cai, Xiangna</td>
<td>608</td>
</tr>
<tr>
<td>Callahan, Shields</td>
<td>215</td>
</tr>
<tr>
<td>Callis Duffin, K.</td>
<td>207, p. 38</td>
</tr>
<tr>
<td>Calzavara-Pinton, Piergiacomo</td>
<td>495</td>
</tr>
<tr>
<td>Camargo, Carlos A.</td>
<td>257</td>
</tr>
<tr>
<td>Camera, E.</td>
<td>331</td>
</tr>
<tr>
<td>Camilleri, M. J.</td>
<td>062</td>
</tr>
<tr>
<td>Campbell, Angela</td>
<td>549</td>
</tr>
<tr>
<td>Campbell, James J.</td>
<td>581, 602</td>
</tr>
<tr>
<td>Campbell, Linda E.</td>
<td>375</td>
</tr>
<tr>
<td>Cantrell, Wendy</td>
<td>538</td>
</tr>
<tr>
<td>Cao, Lauren</td>
<td>548</td>
</tr>
<tr>
<td>Cao, Yuan</td>
<td>424</td>
</tr>
<tr>
<td>Cao Wilkramanayake, Tongyu</td>
<td>430</td>
</tr>
<tr>
<td>Capone, Kimberly</td>
<td>655 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Capone, Lori</td>
<td>531 (E, SH - Celgene)</td>
</tr>
<tr>
<td>Carabajal, Steve</td>
<td>013</td>
</tr>
<tr>
<td>Carbonnel, F.</td>
<td>239</td>
</tr>
<tr>
<td>Cardenas Perez, Monica L.</td>
<td>402</td>
</tr>
<tr>
<td>Cardinale, Irma</td>
<td>475</td>
</tr>
<tr>
<td>Carette, Jan</td>
<td>656</td>
</tr>
<tr>
<td>Carlin, Aaron F.</td>
<td>800</td>
</tr>
<tr>
<td>Carlson, D.</td>
<td>523</td>
</tr>
<tr>
<td>Carlson, Diana</td>
<td>548, 702</td>
</tr>
<tr>
<td>Carlson, Sean W.</td>
<td>083</td>
</tr>
<tr>
<td>Carr, Nicholas</td>
<td>105</td>
</tr>
<tr>
<td>Carrat, Fabrice</td>
<td>239</td>
</tr>
<tr>
<td>Carson, Craig</td>
<td>776</td>
</tr>
<tr>
<td>Carter, Todd V.</td>
<td>569</td>
</tr>
<tr>
<td>Carter, Jared A.</td>
<td>522 (E - Adarza BioSystems)</td>
</tr>
<tr>
<td>Carucci, John A.</td>
<td>095, 118, 119</td>
</tr>
<tr>
<td>Carver, R. S.</td>
<td>349</td>
</tr>
<tr>
<td>Casas, Matias</td>
<td>509</td>
</tr>
<tr>
<td>Casellas, Rafael</td>
<td>556</td>
</tr>
<tr>
<td>Casa, Alex</td>
<td>409</td>
</tr>
<tr>
<td>Castex-Rizzi, Nathalie</td>
<td>054, 314, 588</td>
</tr>
<tr>
<td>Cattaison, Christophe</td>
<td>002, 098, 123</td>
</tr>
<tr>
<td>Cathcart, Martha</td>
<td>075</td>
</tr>
<tr>
<td>Cavender, Druie</td>
<td>658 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Cawthorne, Michael A.</td>
<td>201</td>
</tr>
<tr>
<td>Cedeno-Laurent, Filiberto</td>
<td>576</td>
</tr>
<tr>
<td>Cedzik, Dorota</td>
<td>531 (E, SH - Celgene)</td>
</tr>
<tr>
<td>Cela, Carolina</td>
<td>322</td>
</tr>
<tr>
<td>Celi, Anna</td>
<td>298, 319, 379</td>
</tr>
<tr>
<td>Cenizo, Valérie</td>
<td>335, 695</td>
</tr>
<tr>
<td>Cerio, R.</td>
<td>116</td>
</tr>
<tr>
<td>Cevikbas, Ferda</td>
<td>260</td>
</tr>
<tr>
<td>Cha, Shih-Ting</td>
<td>109, 381</td>
</tr>
<tr>
<td>Chabert, Rachel</td>
<td>671</td>
</tr>
<tr>
<td>Chadoutaud, Bernard</td>
<td>276</td>
</tr>
<tr>
<td>Chadwick, Robert</td>
<td>362</td>
</tr>
<tr>
<td>Chambers, Cindy J.</td>
<td>212</td>
</tr>
<tr>
<td>Chamcheu, Jean Christopher</td>
<td>139</td>
</tr>
<tr>
<td>Chan, Aegean</td>
<td>801</td>
</tr>
<tr>
<td>Chan, Chih-Chiieh</td>
<td>439, 452</td>
</tr>
<tr>
<td>Chan, Derek V.</td>
<td>604</td>
</tr>
<tr>
<td>Chan, I Ja</td>
<td>158</td>
</tr>
<tr>
<td>Chan, Joseph</td>
<td>716</td>
</tr>
<tr>
<td>Chan, Jung-Yi</td>
<td>452</td>
</tr>
<tr>
<td>Chan, Lawrence S.</td>
<td>014, 021</td>
</tr>
<tr>
<td>Chan, Yiong Huak</td>
<td>234</td>
</tr>
<tr>
<td>Chanana, Anita</td>
<td>549</td>
</tr>
<tr>
<td>Chang, Alileen Y.</td>
<td>477, 514</td>
</tr>
<tr>
<td>Chang, Anne Lynn S.</td>
<td>222, 508 (G, I - Medicis; G - Nu Skin)</td>
</tr>
<tr>
<td>Chang, Caroline A.</td>
<td>749</td>
</tr>
<tr>
<td>Chang, Howard Y.</td>
<td>373</td>
</tr>
<tr>
<td>Chang, Howard</td>
<td>129, 396, 813</td>
</tr>
<tr>
<td>Chang, Kris</td>
<td>549</td>
</tr>
<tr>
<td>Chang, Mee Soo</td>
<td>127</td>
</tr>
<tr>
<td>Chang, Pi-Ling</td>
<td>074</td>
</tr>
<tr>
<td>Chang, Regis</td>
<td>746, 747</td>
</tr>
<tr>
<td>Chang, Sherman</td>
<td>772 (E, SH - DermTech International)</td>
</tr>
<tr>
<td>Chang, Shurong</td>
<td>494</td>
</tr>
<tr>
<td>Chang, Stella</td>
<td>389</td>
</tr>
<tr>
<td>Chang, Sungeun</td>
<td>330, 518</td>
</tr>
<tr>
<td>Chang, Tiffany C.</td>
<td>508</td>
</tr>
<tr>
<td>Chang, Yuan</td>
<td>165</td>
</tr>
<tr>
<td>Chapman, M.</td>
<td>496</td>
</tr>
<tr>
<td>Charruyer, Alexandra</td>
<td>824</td>
</tr>
<tr>
<td>Chaudhary, Sandeep C.</td>
<td>152</td>
</tr>
<tr>
<td>Chaussebail, Damien</td>
<td>024</td>
</tr>
<tr>
<td>Chavakis, Triantafyllos</td>
<td>002</td>
</tr>
<tr>
<td>Chen, A.</td>
<td>709, 710 (E - Tocotrienol Manufacturer)</td>
</tr>
<tr>
<td>Chen, Chih C.</td>
<td>797</td>
</tr>
<tr>
<td>Chen, Cynthia</td>
<td>019, 027</td>
</tr>
<tr>
<td>Chen, David L.</td>
<td>383, 798</td>
</tr>
<tr>
<td>Chen, GuoKai</td>
<td>811</td>
</tr>
<tr>
<td>Chen, Haoyan</td>
<td>422</td>
</tr>
<tr>
<td>Chen, Hong-Duo</td>
<td>076, 344</td>
</tr>
<tr>
<td>Chen, J.</td>
<td>138, 735</td>
</tr>
<tr>
<td>Chen, Jiang</td>
<td>413, 420, 444, 794</td>
</tr>
<tr>
<td>Chen, Jiayu</td>
<td>195</td>
</tr>
<tr>
<td>Chen, Jianjun</td>
<td>077</td>
</tr>
<tr>
<td>Chen, Jie</td>
<td>118</td>
</tr>
<tr>
<td>Chen, Ko Ming</td>
<td>642</td>
</tr>
<tr>
<td>Chen, Lieping</td>
<td>732</td>
</tr>
<tr>
<td>Chen, Li-Hao</td>
<td>107</td>
</tr>
<tr>
<td>Chen, M.</td>
<td>039, 145, 194, 387, 828</td>
</tr>
<tr>
<td>Chen, Mei</td>
<td>196, 535</td>
</tr>
<tr>
<td>Chen, Nannan</td>
<td>712 (E, G - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Chen, Siming</td>
<td>370</td>
</tr>
<tr>
<td>Chen, Suephy C.</td>
<td>252</td>
</tr>
<tr>
<td>Chen, T. Minsue</td>
<td>706</td>
</tr>
<tr>
<td>Chen, Theresa</td>
<td>712 (E, G - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Chen, Ying</td>
<td>173, 364</td>
</tr>
<tr>
<td>Chen, Yong</td>
<td>373</td>
</tr>
<tr>
<td>Chen, Yu-Wen</td>
<td>497</td>
</tr>
<tr>
<td>Cheng, C.</td>
<td>828</td>
</tr>
<tr>
<td>Cheng, Yabin</td>
<td>745</td>
</tr>
<tr>
<td>Chernyavsky, Alexander I.</td>
<td>064, 782</td>
</tr>
<tr>
<td>Chevaux, Jean-Baptiste</td>
<td>239</td>
</tr>
<tr>
<td>Chew, Yap C.</td>
<td>360</td>
</tr>
<tr>
<td>Chi, Woo</td>
<td>462</td>
</tr>
<tr>
<td>Chikoh, Anissa</td>
<td>332</td>
</tr>
</tbody>
</table>
D
Da Silva, Sonia  687
Dabaja, Bouthaina  540
Dagum, Alexander B.  476
Dai, Daisy  444
Dai, Xing  323
Dai, Xiuju  181
Dainichi, Teruki  047, 059, 380
Dallaglio, Katiuscia  270, 306
Damsky, William E.  610, 753
Dannenberg, Andrew J. 568
Dao, Harry  (G, I - GOJO Industries)
D' Alessandro, Mariella 175
D' Arcangelis, Alexandra 318
Dargitz, Carl  084
Darlenski, Razvigor  274
Darling, Thomas N.  786, 805
DAULAT, Seema  526
Davari, Parastoo  121
Davis, Laurie S.  494
Davis, Stephen C.  819, 843, 844 (G, I - Waterjel Technologies)
Dawes, S.  025
Dawson, Annelise L.  254
de Belilovsky, Clarence 274, 276, 481
De Benedetto, Anna  271, 637 (G, I - Centocor R & D)
de Boussac, Hugues  701
de Guzman Strong, Cristina 351
De Paula, L.  775 (P - skin cancer detection system)
de Strooper, Bart  340
de Verneuil, Hubert  303
Degen, Martin  100
DeGregori, James  509
Dekker, Job  373
Dellavalle, Robert F.  233, 240, 254, 255, 749, 778
Deloukas, Panos  394
DeLuca, Jane  162 (E - Mattek Corporation)
de Marra, M.  108
Demetriou, Stephanie K.  153
Deming, Clay  638
Deng, April  106
Deng, Yu  416
Dengler, Samuel  786
Denning, Mitchell F.  668
Dentchev, Tzvete  140, 457
Deodhar, Atul A.  253, 517
Deraison, C.  410
Desai, B. V.  138
Detmar, Michael  110, 181, 186
Devere, Theresa  253
Devi, Sulochana  770
Dewell, Scott  022
Dharamsi, Alif  002
Di, W.  400
Di Meglio, Paola  006, 394, 612
Di Nardo, Anna  616
Diaz, David  662
Diaz, Luis A.  035, 080, 193
Diaz-Ley, Blanca  677
Dickerson, Tiffany J.  121
Dicks, Jo  299
DigiOvanna, John J.  126, 377, 378, 740
Dillner, Joakim  591
Dimitroff, Charles J.  576
Dinarello, Charles A.  608, 779
Ding, Wahnong  030, 567, 568
Ding, Yingguo  369
Dispenza, Melanie C.  646
Dizon, Diana  161, 362
Dlugosz, Andrzej A.  169, 715 (C, H - Novartis)
Dmochowski, Marian  009
Do, T.  489
Döbel, Thomas  052, 055
Dodd, Evdokia  725
Dolan, Joseph G.  045
Domloge, Nouha  185, 286, 287, 288, 292, 294, 296, 297, 437, 438, 488, 671, 793
Donahue, Adele  415, 826, 830
Donahue, Cara  388
Dong, Liang  721
Dong, Tiffany K.  153
Dong, Zigang  530
Doreian, Bryan W.  072, 075
Dorosario, Andrew  534, 593
Douki, Thierry  679
Dowd, Scot K.  636 (E, F - Research Testing Laboratory; E, F - Pathogenius)
Dowdy, John C.  698
Dowlatshahi, Mitra  073, 543, 632, 644
Draelos, Zoe D.  284 (I, O - Dermatology Consulting Services)
Dreher, Frank  103 (E - Neocutis)
Droho, Steven  293, 834
Drolet, Beth  407, 427, 428, 496
Du, L.  387
Duan, Shenghui  475
Dubin, K.  640
Dubina, Meghan  528
Dubranc, Sandrine  586
Dufin, Kristina C.  227, 228, 232 (C - Amgen; C - Abbott Laboratories; C - Centocor)
Duffy, Darragh  605, 606
Duffy, K.  427
Duffy, Kelly J.  407
Dumont, Nicole  061, 504
Duncan, N.  108, 827
Dunning, Cory A.  255
Dunnwald, Martine  392
Duong, Jennifer  783
Dupa, J.  239
Dupuy, Patrick  033, 499
Durbin, Richard  394
Durkin, Helen G.  214
Duvic, Madeleine  042, 250, 479, 484, 503, 526, 540, 542 (G, I - Allos Therapeutics Inc.; G - Therakos Inc.)
Dwyer, David W.  136

E
Eberle, Jürgen  103
Ebihara, Tamotsu  277
Echtermeyer, Frank  037
Eckert, Richard L.  357, 358, 360, 361, 425
Eckhart, Leopold  355, 468, 630
Eckstein, Axel  802 (E - Paul Hartmann AG)
Edelson, Richard L.  562
Edhegard, Kim  056
Edir, Anissa  398
Edmiston, Sharon N.  776
Foley, John 432 (C, H - Avagen)
Fong, Kei-Lai 531
Fong, Stephen 824
Fonseca, Maria J. 664
Fontaine, Thomas 016
Ford, Dwayne 843, 844
Forman, John P. 220
Forney, E. 442
Foroughi, Negar 490
Forster, Irmgard 629
Forstreuter, Inka 816
Foy, Vickie 500
Fraitag, Sylvie 374
Franco, Daniel 356
Franco, Daniel 664
Frank, John P. 220
Frank, Michael 343
Frank, Natasha Y. 733, 759
Franke, Susanne 696
Frankel, Hillary C. 216, 257
Franz, Sandra 816
Franzen, C. A. 138
Frauenstein, Katrin 679
Frazier, Lindsay 257
Freyer, Julie 397
Frehet, Mathilde 666
Fricker, Chris 529 (G - GOJO Industries)
Friedel, Jean 175
Frieden, I. 496
Frieden, Ilona 428
Friedman, Adam 003
Fritsche, Ellen 305, 308, 679
Frost, Gregory I. 183 (E - Halozyme Therapeutics Inc.)
Frusic-Zlotkin, Marina 082, 689
Frydman, Alexandra S. 082
Fthenakis, C. 685 (E - Estee Lauder)
Fu, P. 685
Fu, Peter 097
Fu, Teresa 208, 393
Fu, Wen 027
Fuchs, Elaine 261
Fuchs, Kerstin 135
Fuchs-Telem, Dana 365, 367, 368
Fuentes-Duculan, Judilyn 067
Fuet, Aurelie 287, 296
Fuhlbrigge, Robert C. 581, 595, 640
Fujii, Kazuyasu 058
Fujino, Fukue 497
Fujisawa, Yasuhiro 005
Fujita, Hideki 301, 486, 832
Fujita, Junichi 743
Fujita, Mayumi 509, 608, 764, 778, 779
Fujita, Yasuyuki 561
Fuijiwara, Shigeyoshi 791
Fukuda, Shunpei 047
Fukui, Jami 716
Fulop, Kristtima 701
Fung, Carmen K. 048
Furio, L. 410
Furstenberg, Gary 050
Furue, Masataka 260, 328
Furuhashi, Takuya 678
Furukawa, Fukumichi 130
Fux, Peter 097
Fukuda, Shunpei 047
Fukui, Jami 716
Fulop, Kristtima 701
Fung, Carmen K. 048
Furio, L. 410
Furstenberg, Gary 050
Furue, Masataka 260, 328
Furuhashi, Takuya 678
Furukawa, Fukumichi 130
<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haigis, Marcia C.</td>
<td>313</td>
</tr>
<tr>
<td>Hake, Timothy</td>
<td>609</td>
</tr>
<tr>
<td>Hakim, Fran</td>
<td>017</td>
</tr>
<tr>
<td>Halabi, Maya</td>
<td>752</td>
</tr>
<tr>
<td>Haley, Ann C.</td>
<td>765</td>
</tr>
<tr>
<td>Haley, Ann Cameron</td>
<td>528</td>
</tr>
<tr>
<td>Haley, Krystal M.</td>
<td>583, 584, 594</td>
</tr>
<tr>
<td>Hall, Russell P.</td>
<td>056, 829 (G, I - Genentech)</td>
</tr>
<tr>
<td>Hamada, Takahiro</td>
<td>047, 380</td>
</tr>
<tr>
<td>Hamada, Tonoji</td>
<td>324</td>
</tr>
<tr>
<td>Hamada, Toshihisa</td>
<td>058</td>
</tr>
<tr>
<td>Hambrick, George</td>
<td>p. 38</td>
</tr>
<tr>
<td>Hamill, Kevin J.</td>
<td>199, 822</td>
</tr>
<tr>
<td>Hammerberg, Craig</td>
<td>197</td>
</tr>
<tr>
<td>Han, A.</td>
<td>145</td>
</tr>
<tr>
<td>Han, Gangwen</td>
<td>013</td>
</tr>
<tr>
<td>Han, J.</td>
<td>707</td>
</tr>
<tr>
<td>Han, Jiaili</td>
<td>032, 213, 216, 220, 223, 236, 238, 243, 244, 257, 733</td>
</tr>
<tr>
<td>Han, Weinong</td>
<td>086</td>
</tr>
<tr>
<td>Hanada, Ken-ichi</td>
<td>555</td>
</tr>
<tr>
<td>Hanakawa, Yasushi</td>
<td>181</td>
</tr>
<tr>
<td>Hanawa, Fumie</td>
<td>560</td>
</tr>
<tr>
<td>Handoko, Herlinda</td>
<td>752</td>
</tr>
<tr>
<td>Hanlon, Douglas J.</td>
<td>562</td>
</tr>
<tr>
<td>Hannah, Deborah</td>
<td>056</td>
</tr>
<tr>
<td>Hans, Gunter</td>
<td>080</td>
</tr>
<tr>
<td>Hänse1, Anja</td>
<td>052, 055</td>
</tr>
<tr>
<td>Hansen, C. D.</td>
<td>402, 429</td>
</tr>
<tr>
<td>Hansen, Laura A.</td>
<td>442</td>
</tr>
<tr>
<td>Hao, Hongling</td>
<td>776</td>
</tr>
<tr>
<td>Hardas, Bhushan</td>
<td>510, 511, 512 (E - Merz Pharmaceuticals)</td>
</tr>
<tr>
<td>Harder, Jürgen</td>
<td>618</td>
</tr>
<tr>
<td>Hardkop, Lena H.</td>
<td>686</td>
</tr>
<tr>
<td>Harel, Sivan</td>
<td>060, 598</td>
</tr>
<tr>
<td>Harikumar, Parvathy</td>
<td>090</td>
</tr>
<tr>
<td>Harirchian, Bijan</td>
<td>307, 500</td>
</tr>
<tr>
<td>Harper, J. I.</td>
<td>400</td>
</tr>
<tr>
<td>Harrison, Cameron</td>
<td>520, 540</td>
</tr>
<tr>
<td>Harrison, Kathleen A.</td>
<td>688</td>
</tr>
<tr>
<td>Harrison, Wesley</td>
<td>431</td>
</tr>
<tr>
<td>Hartmann, Martin</td>
<td>502</td>
</tr>
<tr>
<td>Haryani, Anand</td>
<td>825</td>
</tr>
<tr>
<td>Hashimoto, Daigo</td>
<td>777</td>
</tr>
<tr>
<td>Hashimoto, Koji</td>
<td>181</td>
</tr>
<tr>
<td>Hashimoto, Takashi</td>
<td>047, 380</td>
</tr>
<tr>
<td>Hashizume, Hideo</td>
<td>453</td>
</tr>
<tr>
<td>Hastings, Karen T.</td>
<td>601</td>
</tr>
<tr>
<td>Hata, Tissa</td>
<td>613, 787</td>
</tr>
<tr>
<td>Hata, Tsuyoshi</td>
<td>269</td>
</tr>
<tr>
<td>Hatzimasoura, Elizabeth</td>
<td>176</td>
</tr>
<tr>
<td>Hay, Ashley A.</td>
<td>233, 254</td>
</tr>
<tr>
<td>Hayashi, Mariko</td>
<td>221</td>
</tr>
<tr>
<td>Hayday, Adrian</td>
<td>006, 097</td>
</tr>
<tr>
<td>Hayden, Matthew S.</td>
<td>059</td>
</tr>
<tr>
<td>Hayden, Patrick</td>
<td>162, 841 (E - Mattek)</td>
</tr>
<tr>
<td>Hayes, Ian</td>
<td>175</td>
</tr>
<tr>
<td>Hays, Danielle</td>
<td>576</td>
</tr>
<tr>
<td>Hazelton, Julian</td>
<td>050</td>
</tr>
<tr>
<td>Hde Tene, Samuel Franck</td>
<td>142</td>
</tr>
<tr>
<td>He, Chun-Di</td>
<td>344</td>
</tr>
<tr>
<td>He, Donggou</td>
<td>141</td>
</tr>
<tr>
<td>He, Tianjun</td>
<td>198, 403, 664</td>
</tr>
<tr>
<td>He, Yu-ying</td>
<td>086, 657</td>
</tr>
<tr>
<td>Heath, Eugene</td>
<td>684</td>
</tr>
<tr>
<td>Heath, Candrice</td>
<td>215, 315</td>
</tr>
<tr>
<td>Hebron, Frank</td>
<td>624</td>
</tr>
<tr>
<td>Hedin, Cristy</td>
<td>649 (E - Mattek)</td>
</tr>
<tr>
<td>Heerinckx, Frederic A.</td>
<td>505 (E - Anacor Pharmaceuticals)</td>
</tr>
<tr>
<td>Hefferman, Kevin</td>
<td>061</td>
</tr>
<tr>
<td>Heinbach, Lisa</td>
<td>193</td>
</tr>
<tr>
<td>Heise, Ruth</td>
<td>278, 578</td>
</tr>
<tr>
<td>Helfrich, Y.</td>
<td>218</td>
</tr>
<tr>
<td>Heljasvaara, Ritva</td>
<td>150</td>
</tr>
<tr>
<td>Heller, Dennis</td>
<td>531</td>
</tr>
<tr>
<td>Helms, Cynthia</td>
<td>422</td>
</tr>
<tr>
<td>Helms, Jill A.</td>
<td>373</td>
</tr>
<tr>
<td>Hennies, H. C.</td>
<td>401</td>
</tr>
<tr>
<td>Herrnd, Rachel P.</td>
<td>362</td>
</tr>
<tr>
<td>Herrmann, Jennifer L.</td>
<td>156</td>
</tr>
<tr>
<td>Herl, Michael</td>
<td>p. 37</td>
</tr>
<tr>
<td>Hibino, Toshihiko</td>
<td>325, 751</td>
</tr>
<tr>
<td>Hickerson, Robyn P.</td>
<td>389, 414, 424</td>
</tr>
<tr>
<td>Hicks, Alesha</td>
<td>142</td>
</tr>
<tr>
<td>Higashiyama, Shigeki</td>
<td>181</td>
</tr>
<tr>
<td>Higgins, Claire A.</td>
<td>060, 533, 598, 804, 833</td>
</tr>
<tr>
<td>Hillary, Tom</td>
<td>280</td>
</tr>
<tr>
<td>Hintze, Vera</td>
<td>816</td>
</tr>
<tr>
<td>Hirakawa, Satoshi</td>
<td>181</td>
</tr>
<tr>
<td>Hirose, Misa</td>
<td>053</td>
</tr>
<tr>
<td>Hirth, Douglas A.</td>
<td>818</td>
</tr>
<tr>
<td>Ho, Elizabeth</td>
<td>071 (E - SkinMedica)</td>
</tr>
<tr>
<td>Ho, Hsiang</td>
<td>723</td>
</tr>
<tr>
<td>Hoang, Mai P.</td>
<td>106</td>
</tr>
<tr>
<td>Hobbs, Ryan P.</td>
<td>338</td>
</tr>
<tr>
<td>Hoocquaux, Michel</td>
<td>434</td>
</tr>
<tr>
<td>Hodgson, Samantha S.</td>
<td>450, 752</td>
</tr>
<tr>
<td>Hodi, Frank S.</td>
<td>759</td>
</tr>
<tr>
<td>Hoeffler, Warren K.</td>
<td>845</td>
</tr>
<tr>
<td>Hoffman, Robert M.</td>
<td>783</td>
</tr>
<tr>
<td>Hoffmann, Jochen</td>
<td>502</td>
</tr>
<tr>
<td>Hoffmann, Matthew</td>
<td>531 (E, SH - Celgene)</td>
</tr>
<tr>
<td>HogenEsch, Harm</td>
<td>406</td>
</tr>
<tr>
<td>Holbrook, Jaimee</td>
<td>482</td>
</tr>
<tr>
<td>Holick, M. F.</td>
<td>735</td>
</tr>
<tr>
<td>Holleran, Walter</td>
<td>289, 290, 311, 379, 801</td>
</tr>
<tr>
<td>Hollier, Brett</td>
<td>752</td>
</tr>
<tr>
<td>Hollman, T. J.</td>
<td>761</td>
</tr>
<tr>
<td>Holtz, Robert</td>
<td>069, 717, 840 (C, O - BioInnovations Lab)</td>
</tr>
<tr>
<td>Holzenberger, Martin</td>
<td>814</td>
</tr>
<tr>
<td>Holzer, Aton</td>
<td>149</td>
</tr>
<tr>
<td>Honda, Kord S.</td>
<td>079, 460, 604, 835</td>
</tr>
<tr>
<td>Hong, Chien-Hui</td>
<td>497</td>
</tr>
<tr>
<td>Hong, Jin-Bon</td>
<td>439</td>
</tr>
<tr>
<td>Honma, M.</td>
<td>410</td>
</tr>
<tr>
<td>Hood, Brian</td>
<td>611</td>
</tr>
<tr>
<td>Hoover, Paul</td>
<td>199</td>
</tr>
<tr>
<td>Hopkinson, Susan B.</td>
<td>199, 821</td>
</tr>
<tr>
<td>Hoppe, Richard T.</td>
<td>540</td>
</tr>
<tr>
<td>Hordinsky, Maria K.</td>
<td>042, 250, 354, 464, 465, 467, 535, 663 (G - NIAMS)</td>
</tr>
<tr>
<td>Hornyak, Thomas</td>
<td>740</td>
</tr>
<tr>
<td>Horsley, Valerie</td>
<td>p. 62</td>
</tr>
<tr>
<td>Hoshina, Daichi</td>
<td>561</td>
</tr>
<tr>
<td>Hosing, Chitra</td>
<td>484, 542</td>
</tr>
<tr>
<td>Hosler, Greg</td>
<td>653</td>
</tr>
<tr>
<td>Hou, Y.</td>
<td>194, 387</td>
</tr>
<tr>
<td>Hovnanian, Alain</td>
<td>374, 398, 535</td>
</tr>
<tr>
<td>Howard, Zack</td>
<td>002</td>
</tr>
<tr>
<td>Howe, William</td>
<td>254</td>
</tr>
<tr>
<td>Hruska, Matthew</td>
<td>553 (E - Abbott)</td>
</tr>
<tr>
<td>Hsieh, Meng-Chen</td>
<td>381</td>
</tr>
<tr>
<td>Hsu, Chiu-Hsieh</td>
<td>773</td>
</tr>
<tr>
<td>Hsu, Dan</td>
<td>650</td>
</tr>
</tbody>
</table>
Kuan, Pei Fen  776
Kuang, Y.   828
Kubick, Bradley J.  159
Kubo, Akiharu  058, 269, 277
Kuchen-Brandes, Stefan 556
Kuchroo, V.  595
Kudo, Ayako  497
Kulesz-Martin, Molly  412, 423
Kumanogoh, Atsushi  558
Kumar, Gondi  531 (E, SH - Celgene)
Kumar, Sandeep  244
Kumar, Shantanu  461
Kundu, Anirban  183 (E - Halozyme Therapeutics Inc.)
Kuo, I-Hsin   271, 637
Kuo, Min-Liang   109
Kupper, T.   595, 640
Kupper, Thomas S.  073, 534, 589, 592, 602, 644, 649
Kurban, Mazen  411, 418
Kurd, S. K.   433
Kurundkar, Deepali  152
Kuschal, Christiane  377
Kuvin, Jeffrey  061
Kuze, Tetsuya  265
Kwak, Kihyuck  591
Kweon, Hee Seok  353
Kwesi, Teye   047
Kwok, Pui-Yan  422
Kwon, Hyouk-Soo  010
Kwon, In Ho  231
Kwon, Oh Sang  230

Labarrade, Florian  286, 297, 793
Lacasse, Isabelle  434
Lachmann, N.  481
Lacy, Katie E.   006
Laga, Alvaro  768
Lagner, Ute   006
LaGory, Edward  668
Lagowski, James  412, 413
Lai, Yuping   613, 787
Laiho, Lily   084
Lajoie, Bryan R.  373
Lam, Minh   667, 670, 683
Lambert, Sylviane  034, 157
Lambert, W. Clark  102, 142
Lamore, Sarah D.  705, 780
Landefeld, C. S.  256
Landry, Tim   649 (E - Mattek Corporation)
Lange, Birgitte  175
Lange, David   p. 31
Lang, Florian  590
Lang, Julie E.   530
Langan, Sinéad  211
Langerfeld, Kenneth  341 (E, I - Genemarkers LLC)
Langeland, Kenneth  090, 201
Langley, Richard  493 (H, C - Abbott; H, C - Amgen; H, C - Biogen
Idec; H, C - Celgene; H, C - Centocor; H, C - Leo;
H, C - Schering; H, C - Merck; H, C - Novartis; H,
C - Ortho Biotech)

Larner, S.   838
LaPresto, Lindsay  767, 773
Lara, Maria Fernanda  389, 414, 424
Lasarregui, Adriana T.  582, 741 (A, B - ImmunRegen)
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
<th>Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee, Young</td>
<td>096, 267, 575, 730</td>
<td></td>
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<tr>
<td>Lee, Young Ho</td>
<td>267</td>
<td></td>
</tr>
<tr>
<td>Lee, Youngae</td>
<td>659</td>
<td></td>
</tr>
<tr>
<td>Lee, Yun Sun</td>
<td>251</td>
<td></td>
</tr>
<tr>
<td>Lefkowitz, Gloria K.</td>
<td>448</td>
<td></td>
</tr>
<tr>
<td>Lehen’kyi, V’yacheslav</td>
<td>314</td>
<td></td>
</tr>
<tr>
<td>Lefferman, K. M.</td>
<td>062</td>
<td></td>
</tr>
<tr>
<td>Leigh, I. M.</td>
<td>087, 263</td>
<td></td>
</tr>
<tr>
<td>Leigh, Irene M.</td>
<td>262</td>
<td></td>
</tr>
<tr>
<td>Leiva, Angel G.</td>
<td>435</td>
<td></td>
</tr>
<tr>
<td>Lemann, M.</td>
<td>239</td>
<td></td>
</tr>
<tr>
<td>Lentini, Tim</td>
<td>067</td>
<td></td>
</tr>
<tr>
<td>Leo, Alicia Marie</td>
<td>318</td>
<td></td>
</tr>
<tr>
<td>Leonardi, Craig</td>
<td>493</td>
<td>(H, C, SB - Abbott; H, C, SB - Amgen; H, C, SB - Centocor; H, C - Pfizer; H, C - Eli Lilly; G - Celgene; G, I - Genentech)</td>
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<td>Lequoy, Valerie</td>
<td>437</td>
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<td>Lerner, Ethan A.</td>
<td>038, 040</td>
<td></td>
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<td>Lesiak, Aleksandra</td>
<td>660, 661</td>
<td></td>
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<tr>
<td>Lesinski, Gregory B.</td>
<td>120, 692</td>
<td></td>
</tr>
<tr>
<td>Lessin, Stuart</td>
<td>503</td>
<td>(C - Yaupon Therapeutics)</td>
</tr>
<tr>
<td>Leston, Richard</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>Leung, Marco L.</td>
<td>136</td>
<td></td>
</tr>
<tr>
<td>Levine, Anna</td>
<td>464, 467</td>
<td></td>
</tr>
<tr>
<td>Levin, Lonny</td>
<td>081, 748</td>
<td></td>
</tr>
<tr>
<td>Levine, Beth</td>
<td>113</td>
<td></td>
</tr>
<tr>
<td>Levine, Danielle</td>
<td>061</td>
<td></td>
</tr>
<tr>
<td>Lewis, Julia</td>
<td>097, 147</td>
<td></td>
</tr>
<tr>
<td>Leyden, Wendy</td>
<td>554</td>
<td></td>
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<tr>
<td>Lhost, Amandine</td>
<td>695</td>
<td></td>
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<tr>
<td>Li, Bingshan</td>
<td>157</td>
<td></td>
</tr>
<tr>
<td>Li, Changwei</td>
<td>787</td>
<td></td>
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<tr>
<td>Li, Dongqing</td>
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<td>408</td>
<td></td>
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<td>Li, Hui</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>Li, Jiadong</td>
<td>716</td>
<td></td>
</tr>
<tr>
<td>Li, Jie</td>
<td>744</td>
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<tr>
<td>Li, Jun</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>Li, Kapsok</td>
<td>572, 573</td>
<td></td>
</tr>
<tr>
<td>Li, Li</td>
<td>444, 794</td>
<td></td>
</tr>
<tr>
<td>Li, Max</td>
<td>841</td>
<td></td>
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<tr>
<td>Li, Ming Q.</td>
<td>583</td>
<td></td>
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<tr>
<td>Li, Mischa</td>
<td>088</td>
<td></td>
</tr>
<tr>
<td>Li, Ning</td>
<td>035, 193</td>
<td></td>
</tr>
<tr>
<td>Li, Qiaoli</td>
<td>343, 415, 532, 830</td>
<td></td>
</tr>
<tr>
<td>Li, Quan Z.</td>
<td>494</td>
<td></td>
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<tr>
<td>Li, S.</td>
<td>699</td>
<td></td>
</tr>
<tr>
<td>Li, Shaowei</td>
<td>786, 805</td>
<td></td>
</tr>
<tr>
<td>Li, Tricia</td>
<td>032, 213, 216, 220, 236, 257</td>
<td></td>
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<tr>
<td>Li, W.</td>
<td>145, 735, 828</td>
<td></td>
</tr>
<tr>
<td>Li, Wei</td>
<td>077, 673</td>
<td></td>
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<tr>
<td>Li, Wen-Hwa</td>
<td>441, 658</td>
<td>(E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Li, Wenqing</td>
<td>243</td>
<td></td>
</tr>
<tr>
<td>Li, Xiaoling</td>
<td>086</td>
<td></td>
</tr>
<tr>
<td>Li, Yinchuan</td>
<td>721</td>
<td></td>
</tr>
<tr>
<td>Li, Yong</td>
<td>197, 691</td>
<td></td>
</tr>
<tr>
<td>Lian, Fangru</td>
<td>773</td>
<td></td>
</tr>
<tr>
<td>Liang, Liming</td>
<td>223</td>
<td></td>
</tr>
<tr>
<td>Liang, Yanhua</td>
<td>414, 421</td>
<td></td>
</tr>
<tr>
<td>Liao, Er-Huan</td>
<td>173</td>
<td></td>
</tr>
<tr>
<td>Liao, Wilson</td>
<td>422</td>
<td></td>
</tr>
<tr>
<td>Liard, Christelle</td>
<td>605, 606</td>
<td></td>
</tr>
<tr>
<td>Libove, Eileen</td>
<td>125</td>
<td></td>
</tr>
<tr>
<td>Licht, Ulrike</td>
<td>002, 266</td>
<td></td>
</tr>
<tr>
<td>Lichtman, Michael K.</td>
<td>073, 543, 632, 644</td>
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</tr>
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<td>Liebel, Frank</td>
<td>268, 454</td>
<td>(E - Johnson &amp; Johnson)</td>
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<tr>
<td>Liechtey, Kenneth W.</td>
<td>817</td>
<td></td>
</tr>
<tr>
<td>Lifton, R.</td>
<td>426</td>
<td></td>
</tr>
<tr>
<td>Lifton, Richard</td>
<td>382</td>
<td></td>
</tr>
<tr>
<td>Lim, Henry</td>
<td>247</td>
<td></td>
</tr>
<tr>
<td>Lim, Scott</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Lin, Andrew M.</td>
<td>617, 633</td>
<td></td>
</tr>
<tr>
<td>Lin, Congxing</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>Lin, Connie B.</td>
<td>712</td>
<td>(G, E - Johnson &amp; Johnson)</td>
</tr>
<tr>
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<td>838</td>
<td></td>
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<tr>
<td>Lin, Fubao</td>
<td>809, 837</td>
<td>(P - P12)</td>
</tr>
<tr>
<td>Lin, Fuquan</td>
<td>746, 747</td>
<td></td>
</tr>
<tr>
<td>Lin, J. Y.</td>
<td>761</td>
<td></td>
</tr>
<tr>
<td>Lin, Jennifer Y.</td>
<td>733, 759</td>
<td></td>
</tr>
<tr>
<td>Lin, Lan</td>
<td>035</td>
<td></td>
</tr>
<tr>
<td>Lin, Meei-Hua</td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>Lin, Samantha Y.</td>
<td>188</td>
<td></td>
</tr>
<tr>
<td>Lin, Sung-Jan</td>
<td>439, 452, 474</td>
<td></td>
</tr>
<tr>
<td>Lin, Tzu-Kai</td>
<td>300, 319, 320, 321</td>
<td></td>
</tr>
<tr>
<td>Lin, Wei-Ting</td>
<td>452</td>
<td></td>
</tr>
<tr>
<td>Lin, William</td>
<td>147</td>
<td>(G, I - Affymetrix)</td>
</tr>
<tr>
<td>Lin, Yan</td>
<td>551</td>
<td></td>
</tr>
<tr>
<td>Linay, Fabien</td>
<td>814</td>
<td></td>
</tr>
<tr>
<td>Lindgren, Joselyn</td>
<td>549</td>
<td></td>
</tr>
<tr>
<td>Ling, Marilyn</td>
<td>536</td>
<td></td>
</tr>
<tr>
<td>Ling, Mt</td>
<td>709</td>
<td></td>
</tr>
<tr>
<td>Lingala, Bharathi</td>
<td>508, 540</td>
<td></td>
</tr>
<tr>
<td>Linos, E.</td>
<td>256</td>
<td></td>
</tr>
<tr>
<td>Linos, Eleni</td>
<td>208</td>
<td></td>
</tr>
<tr>
<td>Lin, Y.</td>
<td>551</td>
<td></td>
</tr>
<tr>
<td>Lin, Zhang</td>
<td>492</td>
<td></td>
</tr>
<tr>
<td>Lippincott-Schwartz, Jennifer</td>
<td>pp. 59, 64</td>
<td></td>
</tr>
<tr>
<td>Lipsky, Peter</td>
<td>p. 37</td>
<td></td>
</tr>
<tr>
<td>Litchauer, J.</td>
<td>349</td>
<td></td>
</tr>
<tr>
<td>Littlewood-Evans, Amanda</td>
<td>480</td>
<td></td>
</tr>
<tr>
<td>Litvinov, Ivan V.</td>
<td>001</td>
<td></td>
</tr>
<tr>
<td>Liu, Aimin</td>
<td>444</td>
<td></td>
</tr>
<tr>
<td>Liu, Bo</td>
<td>373</td>
<td></td>
</tr>
<tr>
<td>Liu, Chiachi</td>
<td>784</td>
<td></td>
</tr>
<tr>
<td>Liu, Fan</td>
<td>098</td>
<td></td>
</tr>
<tr>
<td>Liu, Fang</td>
<td>783</td>
<td></td>
</tr>
<tr>
<td>Liu, Fu Tong</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>Liu, Hannah</td>
<td>652</td>
<td></td>
</tr>
<tr>
<td>Liu, Liang</td>
<td>409</td>
<td></td>
</tr>
<tr>
<td>Liu, Luzhen</td>
<td>602</td>
<td></td>
</tr>
<tr>
<td>Liu, Min</td>
<td>076</td>
<td></td>
</tr>
<tr>
<td>Liu, Ping</td>
<td>526</td>
<td></td>
</tr>
<tr>
<td>Liu, Qiang</td>
<td>395, 473</td>
<td></td>
</tr>
<tr>
<td>Liu, Song</td>
<td>316</td>
<td></td>
</tr>
<tr>
<td>Liu, Weimina</td>
<td>778, 779</td>
<td></td>
</tr>
<tr>
<td>Liu, Ying</td>
<td>691</td>
<td></td>
</tr>
<tr>
<td>Liu, Yuanang</td>
<td>412, 423</td>
<td></td>
</tr>
<tr>
<td>Liu, Zhao-Jun</td>
<td>744</td>
<td></td>
</tr>
<tr>
<td>Liu, Zhi</td>
<td>035, 193</td>
<td></td>
</tr>
<tr>
<td>Lo, Blanche K.</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>Lo, Roger</td>
<td>pp. 20, 30</td>
<td></td>
</tr>
<tr>
<td>Loing, Estelle</td>
<td>434</td>
<td></td>
</tr>
<tr>
<td>Lokshin, Anna E.</td>
<td>551</td>
<td></td>
</tr>
<tr>
<td>Lokuta, Mary</td>
<td>597</td>
<td>(E, I - Stratatech)</td>
</tr>
<tr>
<td>Lombardi, Giovanna</td>
<td>612</td>
<td></td>
</tr>
<tr>
<td>Lombardi, Jack</td>
<td>347, 647</td>
<td></td>
</tr>
<tr>
<td>Lomberk, Gwen A.</td>
<td>146</td>
<td></td>
</tr>
<tr>
<td>Lomonte, Erika</td>
<td>666</td>
<td></td>
</tr>
<tr>
<td>Long, Lisa A.</td>
<td>792</td>
<td></td>
</tr>
<tr>
<td>Longley, Jack B.</td>
<td>146, 174</td>
<td></td>
</tr>
<tr>
<td>Longo, Caterina</td>
<td>737</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Pages</td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
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</tr>
<tr>
<td>Loo, Daniel</td>
<td>061</td>
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<tr>
<td>Lopez, A.</td>
<td>827</td>
<td></td>
</tr>
<tr>
<td>Lorenz, Nadine</td>
<td>607</td>
<td></td>
</tr>
<tr>
<td>Lorier, R.</td>
<td>427</td>
<td></td>
</tr>
<tr>
<td>Lotti, Roberta</td>
<td>270, 306</td>
<td></td>
</tr>
<tr>
<td>Lowes, Michelle A.</td>
<td>045, 067</td>
<td></td>
</tr>
<tr>
<td>Loyd, Candace M.</td>
<td>025, 027</td>
<td></td>
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<tr>
<td>Lu, Benny</td>
<td>842</td>
<td></td>
</tr>
<tr>
<td>Lu, Hongguang</td>
<td>729</td>
<td></td>
</tr>
<tr>
<td>Lu, Jia</td>
<td>810</td>
<td></td>
</tr>
<tr>
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<td>013</td>
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<td>072, 075</td>
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<td>702</td>
<td></td>
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<td></td>
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<tr>
<td>Lu, Yin</td>
<td>382</td>
<td></td>
</tr>
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<td>Luan, Liming</td>
<td>128, 451</td>
<td></td>
</tr>
<tr>
<td>Luckey, Ulrike</td>
<td>607</td>
<td></td>
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<tr>
<td>Ludovici, M.</td>
<td>331</td>
<td></td>
</tr>
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<td>Ludwig, Ralf</td>
<td>053</td>
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<td>Luedtke, Michael A.</td>
<td>820</td>
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<td>Luke, Courtney T.</td>
<td>405, 409</td>
<td></td>
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<tr>
<td>Lüllmann-Rauch, Renate</td>
<td>340</td>
<td></td>
</tr>
<tr>
<td>Lunardon, Luisa</td>
<td>545</td>
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<td>665, 673, 674, 675, 676</td>
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<td>608, 743, 778</td>
<td></td>
</tr>
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<td>Lüscher, Bernhard</td>
<td>681</td>
<td></td>
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<td>Lüscher-Firzlaff, Juliane</td>
<td>681</td>
<td></td>
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<tr>
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<td>285</td>
<td></td>
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<tr>
<td>Luyet, Camille</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td>Lv, Yu</td>
<td>729</td>
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<tr>
<td>Lyga, John</td>
<td>364, 370, 447 (E - Avon Products)</td>
<td></td>
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<tr>
<td>Lyle, Stephen</td>
<td>459</td>
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<td>Lynch, Kaari A.</td>
<td>470</td>
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<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ma, Jie</td>
<td>759</td>
</tr>
<tr>
<td>Ma, Yuehong</td>
<td>729</td>
</tr>
<tr>
<td>Maas, Michael</td>
<td>634</td>
</tr>
<tr>
<td>Mabuchi, Tomotaka</td>
<td>559</td>
</tr>
<tr>
<td>Maccario, Frederic</td>
<td>666</td>
</tr>
<tr>
<td>MacDonald, T. T.</td>
<td>400</td>
</tr>
<tr>
<td>Mace, Charles R.</td>
<td>522</td>
</tr>
<tr>
<td>Mack, M. Catherine</td>
<td>708 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Mackay-Wiggan, Julian M.</td>
<td>549</td>
</tr>
<tr>
<td>Mackenzie, Donald</td>
<td>311, 379</td>
</tr>
<tr>
<td>MacLeod, Daniel T.</td>
<td>623</td>
</tr>
<tr>
<td>Maczey, Evi</td>
<td>766</td>
</tr>
<tr>
<td>Maddison, Ben</td>
<td>299</td>
</tr>
<tr>
<td>Maddodi, Nityanand</td>
<td>770</td>
</tr>
<tr>
<td>Madhavan, Shajil</td>
<td>770</td>
</tr>
<tr>
<td>Maestro, Yannick</td>
<td>318</td>
</tr>
<tr>
<td>Maestroni, Georges</td>
<td>557</td>
</tr>
<tr>
<td>Maffei, Vincent J.</td>
<td>645</td>
</tr>
<tr>
<td>Magidson, Jay</td>
<td>743</td>
</tr>
<tr>
<td>Magro, Cynthia M.</td>
<td>083, 748</td>
</tr>
<tr>
<td>Mah, Angela</td>
<td>129, 813</td>
</tr>
<tr>
<td>Mahalingam, M.</td>
<td>760</td>
</tr>
<tr>
<td>Mahalingam, Meera</td>
<td>106</td>
</tr>
<tr>
<td>Mahan, Meredith</td>
<td>247</td>
</tr>
<tr>
<td>Mahe, Yann</td>
<td>831</td>
</tr>
<tr>
<td>Maher, Wanda</td>
<td>648</td>
</tr>
<tr>
<td>Mahnke, Karsten</td>
<td>587, 634</td>
</tr>
<tr>
<td>Mahoney, Anne</td>
<td>215</td>
</tr>
<tr>
<td>Maier, Elizabeth A.</td>
<td>470</td>
</tr>
<tr>
<td>Maier, Lisa</td>
<td>026</td>
</tr>
<tr>
<td>Majora, Marc</td>
<td>308, 679, 696</td>
</tr>
<tr>
<td>Majumdar, A.</td>
<td>408</td>
</tr>
<tr>
<td>Makino, Teruhiko</td>
<td>325</td>
</tr>
<tr>
<td>Malbasa, Christi L.</td>
<td>683, 685</td>
</tr>
<tr>
<td>Maldonado, Mike</td>
<td>080</td>
</tr>
<tr>
<td>Malissen, Bernard</td>
<td>584</td>
</tr>
<tr>
<td>Maloney, Lauren</td>
<td>809</td>
</tr>
<tr>
<td>Malouff, T.</td>
<td>442</td>
</tr>
<tr>
<td>Mammone, Thomas</td>
<td>347, 647, 648</td>
</tr>
<tr>
<td>Man, Mao-Qiang</td>
<td>311, 319, 320</td>
</tr>
<tr>
<td>Mancianti, Maria L.</td>
<td>824</td>
</tr>
<tr>
<td>Mandeau, Anne</td>
<td>588</td>
</tr>
<tr>
<td>Manga, P.</td>
<td>722</td>
</tr>
<tr>
<td>Manga, Prashiela</td>
<td>720</td>
</tr>
<tr>
<td>Manni, Michela</td>
<td>030, 557</td>
</tr>
<tr>
<td>Manoj, Kumar</td>
<td>810</td>
</tr>
<tr>
<td>Manson, JoAnn E.</td>
<td>208</td>
</tr>
<tr>
<td>Mantel, Alon</td>
<td>333</td>
</tr>
<tr>
<td>Mao, Xiaohong</td>
<td>369</td>
</tr>
<tr>
<td>Mao, Xuming</td>
<td>202</td>
</tr>
<tr>
<td>Marcello, Jennifer</td>
<td>714</td>
</tr>
<tr>
<td>Marchenko, S.</td>
<td>062, 064</td>
</tr>
<tr>
<td>Marchenko, Steve</td>
<td>782</td>
</tr>
<tr>
<td>Marconi, Alessandra</td>
<td>270, 306</td>
</tr>
<tr>
<td>Mardaryev, Andrei</td>
<td>131, 334, 456</td>
</tr>
<tr>
<td>Margolis, David J.</td>
<td>206, 211, 248 (C - Abbott; C - Astellas)</td>
</tr>
<tr>
<td>Marinari, Barbara</td>
<td>115</td>
</tr>
<tr>
<td>Marini, Alessandra</td>
<td>191</td>
</tr>
<tr>
<td>Marji, Jackleen</td>
<td>549</td>
</tr>
<tr>
<td>Marks, M.</td>
<td>299</td>
</tr>
<tr>
<td>Marquardt, Yvonne</td>
<td>278, 578, 681</td>
</tr>
<tr>
<td>Marshall, Christine</td>
<td>140</td>
</tr>
<tr>
<td>Marshall, John</td>
<td>196</td>
</tr>
<tr>
<td>Martin, David A.</td>
<td>065, 068 (E, SH, O - Amgen Inc.)</td>
</tr>
<tr>
<td>Martin, Katharine M.</td>
<td>708 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Martin, Stefan M.</td>
<td>607</td>
</tr>
<tr>
<td>Martin-Esquerra, Gemma</td>
<td>311</td>
</tr>
<tr>
<td>Martin-Garrido, Abel</td>
<td>091</td>
</tr>
<tr>
<td>Martini, Mary K.</td>
<td>765</td>
</tr>
<tr>
<td>Martinika, Magdalena</td>
<td>745</td>
</tr>
<tr>
<td>Martins, Vera</td>
<td>196</td>
</tr>
<tr>
<td>Martinisen, Angela</td>
<td>811</td>
</tr>
<tr>
<td>Martires, Kathryn J.</td>
<td>017, 249 (G - Pfizer)</td>
</tr>
<tr>
<td>Maruziva, Daren</td>
<td>299</td>
</tr>
<tr>
<td>Masaki, Tarso</td>
<td>740</td>
</tr>
<tr>
<td>Mascia, Francesca</td>
<td>002</td>
</tr>
<tr>
<td>Mastaloudis, Angela</td>
<td>341 (E - Nu Skin Enterprises)</td>
</tr>
<tr>
<td>Mastrofrancesco, A.</td>
<td>331, 756</td>
</tr>
<tr>
<td>Matabuenza, Maria</td>
<td>704</td>
</tr>
<tr>
<td>Mathers, Alicia R.</td>
<td>582, 741</td>
</tr>
<tr>
<td>Matsui, M. S.</td>
<td>229, 313, 399, 685, 711, 718 (E - Estee Lauder)</td>
</tr>
<tr>
<td>Matsunaga, Yukiko</td>
<td>791</td>
</tr>
<tr>
<td>Matsushima, Hironori</td>
<td>563, 624</td>
</tr>
<tr>
<td>Matthews, Loderick</td>
<td>653</td>
</tr>
<tr>
<td>Matthews, Mark R.</td>
<td>653</td>
</tr>
<tr>
<td>Mauro, Lucia M.</td>
<td>430, 436, 443, 445</td>
</tr>
<tr>
<td>Mauro, Theodora</td>
<td>289, 290, 298, 319, 379</td>
</tr>
<tr>
<td>Mayes, Andrew E.</td>
<td>541</td>
</tr>
<tr>
<td>Mazurier, Frederic R.</td>
<td>114, 303</td>
</tr>
<tr>
<td>McCarthy, James</td>
<td>348</td>
</tr>
<tr>
<td>McClain, S.</td>
<td>838</td>
</tr>
<tr>
<td>McClain, Steve A.</td>
<td>818</td>
</tr>
<tr>
<td>McCormick, T.</td>
<td>523</td>
</tr>
<tr>
<td>McCormick, Thomas S.</td>
<td>044, 548, 702</td>
</tr>
<tr>
<td>McCulley, David</td>
<td>725</td>
</tr>
<tr>
<td>McElroy, Stuart</td>
<td>397</td>
</tr>
</tbody>
</table>
McElwee, Kevin J.  023, 105, 107
McGrath, John A.  415, 535, p. 80
McLean, W. H. Irwin  248, 300, 366, 375, 397
McMichael, A.  299
McMillan, Erin  811
McNutt, N. S.  739
McTigue, Monica  809
Meadows, Christiaan  284 (I - NOX Technologies Inc.)
Medzhitov, Ruslan  594
Meephansan, Jitlada  007
Mehta, Jayesh  825
Mehta, Rahul  069, 071 (E - SkinMedica)
Mehta, Sourabh D.  522 (E - Adarza BioSystems)
Meier, Friedegund  766
Meingassner, Josef G.  179, 480
Meldrum, Helen  500, 790 (E - Unilever)
Melton-Kreft, Racheal  636
Meltzer, Paul  333
Meng, T. C.  652 (E - Graceway Pharmaceuticals)
Menier, Severine  606
Menon, Gopinathan K.  185, 288, 296, 309
Menu, Franck  726
Mesnard, Laurent  752
Messingham, Kelly A.  043
Messmer, Karina  186
Metzger, Todd C.  601
Meyer, Imke  815 (E - Symrise)
Meyer, Laurence J.  070
Meyrignac, Celine  437, 438
Mi, Qing-Sheng  076, 344
Michael, Beno  082
Michelet, Jean Francois  831
Michelon, Melissa  504
Mildner, Michael  300, 630
Milla, Laura  704
Millar, Sarah  449, 457
Miller, Benjamin L.  522 (F - Adarza BioSystems)
Miller, D.  735
Miller, Duanne D.  077
Miller, Jeremiah  613 (G, I - Amgen)
Miller, Lloyd  618, 624
Mills, Kyle C.  527
Milner, Yoram  082, 689
Milstone, Leonard M.  382, 408, 421, 424, 426
Mineau, Geraldine  228
Miner, Jeffrey  350
Ming, L.  738
Ming, Mei  086, 657
Ming, Michael E.  224
Minocha, Julia  482
Minondo, Anne Marie  831
Minwell, Greg J.  249
Miranda, Benjamin H.  471
Mirkin, Chad A.  383, 798 (F, O - Aurasense)
Mirvish, Ezra D.  165, 168
Miteva, Mariya  435
Mitra, N.  248
Mitsui, Hiroshi  045, 095, 119, 155, 301, 739, 832
Miyachi, Yoshiki  049, 336, 566
Miyagaki, Tomomitsu  478, 486
Miyagawa, Fumi  036, 579
Miyamoto, Shoko  272
Miyoshi, Ken  272
Mizuno, Hideaki  269
Mizutani, Hitoshi  585
Miltz, Veronika  355
Mo, Jonathan L.  118
Modi, Badri  097, 147
Modlin, Robert L.  031, 626, 635, 650
Mohan, Chandra  494
Moore, Kate  196
Moore, Patrick S.  165
Moquette, Rachel  567, 568
Morasso, Maria I.  010, 266
Morelli, Adrian E.  582, 741
Morelli, Joseph  259
Moreno, Zaida  662
Moretti, Francesca  115
Morgan, Bruce A.  462
Mooshchala, Shabbir M.  810
Morita, Akimichi  678, 754
Morizane, Shin  058, 622
Moroi, Yoichi  328
Morré, D. J.  284
Morré, Dorothy M.  284 (E, F - NOX Technologies)
Morré, Dorothy M.  284 (E, F - NOX Technologies)
Mortaghi, Diliana  325, 751
Moulder, J. E.  827
Mountz, John  141
Msika, Philippe  274, 276, 280, 481, 788
Muccio, Donald  074
Mudde-Boer, Liesbeth  458
Muehelesen, Beda  631
Muehlisen, Beda  631
Mueler, Christopher G.  016
Mueler, Eliane J.  352
Mullen, Ralf S.  413
Muzzzuddin, Neelam  648
Mukherjee, Pranab K.  683
Mukherjee, Surajit  307
Mukherjee, Pranab K.  683
Mukherjee, Pranab K.  683
Mukhopadhyay, Anandaroop  448, 461
Mukhtar, Hasan  139, 283
Müller, Stephanie  816
Mungillo, Michael V.  522 (E - Adarza BioSystems)
Munier, Severine  605
Munk, Roni  628
Munla, Lydia  185, 287, 288, 297, 438
Murakami, M.  410
Oliviero, Margaret | 742 (H, SB - 3Gen; G, I - Lucid; G, I - MELA Sciences; G, I - SciBase; G, I - DermTech; G, I - Spectral Image)
Olsen, Elise | 503
Olson, Eric | 449
O’Neill, Jenna L. | 234, 251, 501
Ong, S. | 709, 710 (E - Tocotrienol Manufacturer)
Ono, Fumitake | 047
Opperman, Matthew | 576
Oriolo, Andrea S. | 744
O’Shea, Charlene | 195
O’Shea, John J. | 556
Oster, Michele | 814
O’Toole, Edel A | 196
Otsuka, Fujio | 005
Ott, Hagen | 578
Ottaviani, M. | 331
Oyama, Noritaka | 415
Ozato, Keiko | 579
Ozdoganlar, B. | 388

Page, Brigitte | 525
Pageon, Herve | 781
Paik, Seung Hwan | 230
Paladini, Rudolph D. | 183 (E - Halozyne Therapeutics)
Palazzo, Elisabetta | 270, 306
Palecek, Sean | 111, 215, 315, 382, 383, 798, pp. 20, 38
Paller, Amy S. | 371
Palmer, Tara J. | 772 (E, SH - DermTech International)
Pan, Michael | 777
Pandya, Amit | 503
Pangburn, Heather A. | 416
Panicker, Sreejith P. | 079, 172, 460, 835
Panoutsopoulou, Ioanna G. | 663
Panteleyev, Andrey A. | 087, 262, 263
Papazoglou, Elisabeth | 544
Papoju, Alexandru D. | 546
Pappas, Apostolos | 441, 658 (E - Johnson & Johnson)
Pappert, Eric J. | 510, 511, 512 (E - Merz Pharmaceuticals LLC)
Paraskevas, Steven | 628
Pardos, Carlos | 245
Park, Byung Soon | 518
Park, Chang O. | 577
Park, Chi-Hyun | 680
Park, Chun Wook | 231
Park, Geon Tae | 384
Park, Hwa-Young | 302, 799
Park, Jong Y. | 089
Park, Kui-Young | 572
Park, Kyong-Chan | 728, 795
Park, Kyungho | 289, 290, 295, 801
Park, Moonhee | 193
Park, So-Hee | 728
Park, Yong-Doo | 385
Park, Yoonkyung | 639

Park, Dong Hee | 353
Parnes, H. | 773
Parsi, Kory | 212
Parson, Walther | 468
Parts, Leopold | 394
Partyka, Katie A. | 509, 764
Parvataneni, R. | 256
Pascual, Virginia | 024
Pashkenov, Mikhail | 726
Paslin, D. | 064
Pastorekova, Silvia | 734
Patel, Daxesh | 568
Patel, Girish K. | 148
Patel, Milan | 050
Patel, Sapna | 215
Patel, Vishal | 176
Patton, Timothy J. | 168
Patton, Timothy | 226
Patvardhan, Eshan | 061
Paul, Kotot | 787
Paulson, Kelly | 547
Paulson, Susan | 553 (E - Abbott)
Paus, Ralf | 431 (G - Giuliani S.p.A.)
Pavletic, Steven Z. | 017
Pavlovsky, Mor | 365
Paw, Jonathan | 041
Pawliczak, Rafal | 660
Payne, Aimee S. | 048, 202, 545
Paz-Cristobal, M. Pablo | 703
Peakman, Mark | 612
Pear, Warren | 457
Pearce, Daniel | 251, 527
Pease, Camilla | 308
Peijer, Gunnar | 035
Pellacani, Giovanni | 737
Pelle, Edward | 348
Peling, J. C. | 138
Peltonen, Juha | 150
Peng, Han | 372
Peng, Lisan S. | 104
Pennypacker, Sally | 173
Peno-Mazzarino, Laurent | 190
Pentland, Alice P. | 333, 536
Perea, Gayathri K. | 006
Pereisics, Ergo | 519
Perez, Eduardo | 057, 567 (E, SH - Argyle Therapeutics; E, SH, P - Signum BoSciences)
Peronnet, N. | 738
Peronnet, Nadine | 348
Pero, Joanna | 143, 169
Perrin, Armelle | 437, 438
Perrin-Biroulet, Laurent | 239
Petrachi, Tiziana | 270, 306
Petukhova, L. | 250, 419
Petukhova, Lynn | 418, 598
Pfeiffer, Roland | 308
Pfender, Nikolai | 607
Pfisterer, Karin | 580
Philip, Anie | 001
Philippe, Virginie | 615
Phillips, Brett T. | 476
Phillips, C. | 064
Phillips, Courtney | 782
Phillips, Kevin | 412, 423
Phillips, Marjorie A. | 342
Philpott, M. P. | 116
Philpott, Michael | 431
<table>
<thead>
<tr>
<th>Name</th>
<th>Pages</th>
<th>Company/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sano, Shigetoshi</td>
<td>011, 013, 029, 093, 099, 272</td>
<td></td>
</tr>
<tr>
<td>Sans, B.</td>
<td>410</td>
<td></td>
</tr>
<tr>
<td>Santhanam, Uma</td>
<td>447 (E - Avon Products)</td>
<td></td>
</tr>
<tr>
<td>Sanyal, Amartya</td>
<td>373</td>
<td></td>
</tr>
<tr>
<td>Sanz-Rodríguez, Francisco</td>
<td>704</td>
<td></td>
</tr>
<tr>
<td>Sapkota, Bishu</td>
<td>569</td>
<td></td>
</tr>
<tr>
<td>Sarig, Ofir</td>
<td>365, 367, 368</td>
<td></td>
</tr>
<tr>
<td>Sarno, Euzenir N.</td>
<td>650</td>
<td></td>
</tr>
<tr>
<td>Saruwatari, Keishi</td>
<td>265</td>
<td></td>
</tr>
<tr>
<td>Sasman, Amy</td>
<td>798</td>
<td></td>
</tr>
<tr>
<td>Sasseville, Denis</td>
<td>001</td>
<td></td>
</tr>
<tr>
<td>Sato, Shinichi</td>
<td>008, 012, 273, 478, 486</td>
<td></td>
</tr>
<tr>
<td>Sauer, Brian</td>
<td>227</td>
<td></td>
</tr>
<tr>
<td>Savignac, Magali</td>
<td>398</td>
<td></td>
</tr>
<tr>
<td>Savoy, Leonard</td>
<td>552</td>
<td></td>
</tr>
<tr>
<td>Sawada, Yu</td>
<td>627</td>
<td></td>
</tr>
<tr>
<td>Sawamura, Daisuke</td>
<td>417</td>
<td></td>
</tr>
<tr>
<td>Sayama, Koji</td>
<td>181</td>
<td></td>
</tr>
<tr>
<td>Sayar, Beyza</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td>Sayo, Tetsuya</td>
<td>265</td>
<td></td>
</tr>
<tr>
<td>Sayre, Robert M.</td>
<td>698</td>
<td></td>
</tr>
<tr>
<td>Schäkel, Knut</td>
<td>052, 055</td>
<td></td>
</tr>
<tr>
<td>Schachner, Lawrence A.</td>
<td>436, 443, 445</td>
<td></td>
</tr>
<tr>
<td>Schaefer, Carole</td>
<td>228</td>
<td></td>
</tr>
<tr>
<td>Schafer, Peter</td>
<td>531 (E, SH - Celgene)</td>
<td></td>
</tr>
<tr>
<td>Schaffer, Julie V.</td>
<td>241</td>
<td></td>
</tr>
<tr>
<td>Scharadín, Tiffany</td>
<td>361</td>
<td></td>
</tr>
<tr>
<td>Scharfetter-Kochanek, Karin</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>Scharnweber, Dieter</td>
<td>816</td>
<td></td>
</tr>
<tr>
<td>Schatton, Tobias</td>
<td>576, 733</td>
<td></td>
</tr>
<tr>
<td>Scheffler, Michael</td>
<td>515</td>
<td></td>
</tr>
<tr>
<td>Schellenbacher, Christina</td>
<td>591 (P - L1-L2 VLP)</td>
<td></td>
</tr>
<tr>
<td>Schenten, Dominik</td>
<td>594</td>
<td></td>
</tr>
<tr>
<td>Scherz, Jennifer</td>
<td>468, 630</td>
<td></td>
</tr>
<tr>
<td>Schick, Jonathan</td>
<td>120, 692</td>
<td></td>
</tr>
<tr>
<td>Schierl, Michael</td>
<td>567, 568</td>
<td></td>
</tr>
<tr>
<td>Schikowski, Tamara</td>
<td>229, 399</td>
<td></td>
</tr>
<tr>
<td>Schmid, Andreas</td>
<td>135</td>
<td></td>
</tr>
<tr>
<td>Schmidt, Enno</td>
<td>053</td>
<td></td>
</tr>
<tr>
<td>Schmidt, Linda A.</td>
<td>070</td>
<td></td>
</tr>
<tr>
<td>Schmidt, Talke</td>
<td>607</td>
<td></td>
</tr>
<tr>
<td>Schmitz, Annika</td>
<td>339</td>
<td></td>
</tr>
<tr>
<td>Schmitz, Gerd</td>
<td>309</td>
<td></td>
</tr>
<tr>
<td>Schmotzer, Brian</td>
<td>548</td>
<td></td>
</tr>
<tr>
<td>Schmeltz, Chrysalyne D.</td>
<td>073, 210, 632, 644</td>
<td></td>
</tr>
<tr>
<td>Schmuth, Matthias</td>
<td>300, 586</td>
<td></td>
</tr>
<tr>
<td>Schnabelrauch, Matthias</td>
<td>816</td>
<td></td>
</tr>
<tr>
<td>Schneider, Nicole</td>
<td>110</td>
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<td>Schoefmann, Nicole</td>
<td>458</td>
<td></td>
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<td>Schopf, Rudolf</td>
<td>519, 539</td>
<td></td>
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<tr>
<td>Schoubben, A.</td>
<td>187</td>
<td></td>
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<td>Schrama, David</td>
<td>547</td>
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<td>Schuepbach-Mallepell, Sonia</td>
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<td>696</td>
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<tr>
<td>Schultz, Leonard</td>
<td>406</td>
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<tr>
<td>Schulz, Martin M.</td>
<td>186</td>
<td></td>
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<tr>
<td>Schulze, Katja</td>
<td>352</td>
<td></td>
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<tr>
<td>Schupp, Clayton</td>
<td>212</td>
<td></td>
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<tr>
<td>Schurgers, Leon J.</td>
<td>532</td>
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<td>Schuster, Christopher</td>
<td>571</td>
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<td>Schutte, Brian C.</td>
<td>392</td>
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<td>340</td>
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<td>772 (E, SH - DermTech International)</td>
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<td>Schwarz, Agatha</td>
<td>565, 570</td>
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<td>565, 570</td>
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<td>Scimeca, John V.</td>
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<td>Secrest, Aaron</td>
<td>226</td>
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<td>Seelig, Stephan</td>
<td>260</td>
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<td>Segre, Julia A.</td>
<td>638, 817</td>
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<td>Seidman, M.</td>
<td>408</td>
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<td>Seiffert-Sinha, Kristina</td>
<td>048, 050</td>
<td></td>
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<tr>
<td>Seishima, Mariko</td>
<td>189</td>
<td></td>
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<tr>
<td>Sekhon, Ashley</td>
<td>061</td>
<td></td>
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<tr>
<td>Sekowska, Magdalena</td>
<td>394</td>
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<tr>
<td>Seldon, Paul M.</td>
<td>090</td>
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<td>Selim, Angelica</td>
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<td>727</td>
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<td>Selvan, Pannee</td>
<td>183 (E - Halozyme Therapeutics)</td>
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<tr>
<td>Selvin, Elizabeth</td>
<td>204</td>
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</tr>
<tr>
<td>Selway, Joanne L.</td>
<td>090</td>
<td></td>
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<tr>
<td>Seminara, Nicole</td>
<td>206, 211</td>
<td></td>
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<tr>
<td>Sen, Subrata</td>
<td>466</td>
<td></td>
</tr>
<tr>
<td>Seneschal, Julien</td>
<td>589, 592, 602</td>
<td></td>
</tr>
<tr>
<td>Senior, Robert</td>
<td>193</td>
<td></td>
</tr>
<tr>
<td>SEO, Inseok</td>
<td>346 (E - Johnson &amp; Johnson)</td>
<td></td>
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<tr>
<td>SEO, Jong Bum</td>
<td>353</td>
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<td>SEO, Seong-Jun</td>
<td>573</td>
<td></td>
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<tr>
<td>SEO, Sung Jun</td>
<td>231, 572</td>
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<td>096, 575, 731</td>
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<td>812</td>
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<td>009</td>
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<td>Serre, Catherine</td>
<td>287</td>
<td></td>
</tr>
<tr>
<td>Setaluri, Vijayasaradhi</td>
<td>770, 811</td>
<td></td>
</tr>
<tr>
<td>Settin, Ahmad</td>
<td>386</td>
<td></td>
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<tr>
<td>Seybold, K.</td>
<td>775 (P - skin cancer detection system)</td>
<td></td>
</tr>
<tr>
<td>Seykora, John</td>
<td>140, 457</td>
<td></td>
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<tr>
<td>Shafi, Rubina</td>
<td>538</td>
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<tr>
<td>Shafti-Keramat, Saeed</td>
<td>591</td>
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<td>Shah, Amishi</td>
<td>526</td>
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<td>095, 119</td>
<td></td>
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<td>Shah, Nihar</td>
<td>803</td>
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<tr>
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<td>633</td>
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<td>Shaikh, W. R.</td>
<td>217</td>
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<td>376</td>
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<tr>
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<td>Shao, Yuan</td>
<td>664, 691</td>
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<td>023, 105, 107</td>
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<td>409</td>
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<td>694</td>
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<td>131, 334, 456, 762, 774</td>
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<td>456, 762, 774</td>
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<td>471</td>
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<td>475</td>
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<td>555, 560, 619</td>
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<td>Shimba, Shigeki</td>
<td>324</td>
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<td>343, 561</td>
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<td>Shin, D. B.</td>
<td>207</td>
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<td>Shin, Daniel B.</td>
<td>206, 211, 224</td>
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<td>731</td>
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<td>716</td>
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<td>Shirafuji, Yoshinori</td>
<td>058</td>
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<tr>
<td>Shirakata, Yuji</td>
<td>181</td>
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<td>Shiue, Lisa</td>
<td>484</td>
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<td>Showe, Louise C.</td>
<td>520</td>
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<td>Siciliano, Ilario</td>
<td>148</td>
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<td>Siconolfi, Lisa</td>
<td>743</td>
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<tr>
<td>Siddiqui, Shobh S.</td>
<td>186</td>
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<td>427</td>
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<td>319, 406, 413, 643 (G - Proctor &amp; Gamble)</td>
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<td>214</td>
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<td>214</td>
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<td>575</td>
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<td>037, 094, 816</td>
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<td>436</td>
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<td>398</td>
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<td>808</td>
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<tr>
<td>Simpson, Andrew</td>
<td>146</td>
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<tr>
<td>Simpson, Eric</td>
<td>246, 492</td>
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<tr>
<td>Simpson, Matthew J.</td>
<td>483</td>
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<td>Singer, A.</td>
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<td>Singer, Adam J.</td>
<td>818, 837</td>
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<td>059, 060, 533</td>
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<td>152, 672, 713</td>
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<td>Sinha, Animesh A.</td>
<td>048, 050, 237</td>
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<td>Sinha, N.</td>
<td>349</td>
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<tr>
<td>Sinha, Satrajit</td>
<td>124, 316, 449</td>
<td></td>
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<tr>
<td>Sipraswvill, Zurab</td>
<td>396</td>
<td></td>
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<tr>
<td>Siu, Sophia</td>
<td>701</td>
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<td>823</td>
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<td>822</td>
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<td>Skazik, Claudia</td>
<td>278, 578, 681</td>
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<td>Skobowiaw, Cezary</td>
<td>698</td>
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<tr>
<td>Skowera, Ania</td>
<td>612</td>
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<tr>
<td>Skryma, Roman</td>
<td>314</td>
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<td>Sligh, James E.</td>
<td>167, 171, 203</td>
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<td>735</td>
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<td>077, 698, 755</td>
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<td>Small, Kerrin</td>
<td>394</td>
<td></td>
</tr>
<tr>
<td>Smith, Catherine H.</td>
<td>006</td>
<td></td>
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<tr>
<td>Smith, Frances J.</td>
<td>402</td>
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<td>489</td>
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<td>415</td>
<td></td>
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<td>Smith, Shilo</td>
<td>509, 764</td>
<td></td>
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<tr>
<td>Smith-Norowitz, Tamar</td>
<td>214</td>
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<tr>
<td>Smola, Hans</td>
<td>802 (E - Paul Hartmann AG)</td>
<td></td>
</tr>
<tr>
<td>Smyth, Padhraic</td>
<td>473</td>
<td></td>
</tr>
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<td>Snitkin, Evan S.</td>
<td>817</td>
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<td>Sobiesiak, Malgorzata</td>
<td>590</td>
<td></td>
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<td>047, 380</td>
<td></td>
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<td>096, 267, 575, 750</td>
<td></td>
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<td>Sohn, Taesik</td>
<td>264</td>
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<tr>
<td>Solima, P.</td>
<td>775</td>
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<tr>
<td>Solomnon, James A.</td>
<td>251</td>
<td></td>
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<tr>
<td>Solt, D. B.</td>
<td>138</td>
<td></td>
</tr>
<tr>
<td>Soltani, Keyoumars</td>
<td>086, 657</td>
<td></td>
</tr>
<tr>
<td>Soma, Tsumou</td>
<td>791</td>
<td></td>
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<td>Sommer, Pascal</td>
<td>335</td>
<td></td>
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<td>004</td>
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<tr>
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<td>639</td>
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<td>069, 071 (E - SkinMedica)</td>
<td></td>
</tr>
<tr>
<td>Soroka, Yoram</td>
<td>689</td>
<td></td>
</tr>
<tr>
<td>Sorrell, Jennifer</td>
<td>315</td>
<td></td>
</tr>
<tr>
<td>Soto, Brenda</td>
<td>597. E - Stratech</td>
<td></td>
</tr>
<tr>
<td>Soto Hopkin, Amelia</td>
<td>161, 395</td>
<td></td>
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<tr>
<td>South, A.</td>
<td>387</td>
<td></td>
</tr>
<tr>
<td>South, Andrew P.</td>
<td>176, 397</td>
<td></td>
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<tr>
<td>Southall, Michael D.</td>
<td>268, 317 (E - Johnson &amp; Johnson)</td>
<td></td>
</tr>
<tr>
<td>Spallone, Giulia</td>
<td>115</td>
<td></td>
</tr>
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<td>Spanwasser, Tim</td>
<td>565</td>
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<tr>
<td>Speakner, Katrina M.</td>
<td>209</td>
<td></td>
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<tr>
<td>Specker, Tycho J.</td>
<td>414</td>
<td></td>
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<tr>
<td>Speaker, Tycho J.</td>
<td>389</td>
<td></td>
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<tr>
<td>Specht, Lisa</td>
<td>413</td>
<td></td>
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<tr>
<td>Speer, Kelsey</td>
<td>785</td>
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<td>786</td>
<td></td>
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<tr>
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<td>414</td>
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<td>404</td>
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<tr>
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<td>252</td>
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<td>252</td>
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<td>Spratt, Maureen</td>
<td>649 (E - Mattek)</td>
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<td>Sprecher, Eli</td>
<td>343, 365, 367, 368</td>
<td></td>
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<td>522</td>
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<td>610</td>
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<td>Sriswiriyanont, Penkanok</td>
<td>470</td>
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<td>339</td>
<td></td>
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<td>655, 708 (E - Johnson &amp; Johnson)</td>
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<td>545</td>
<td></td>
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<tr>
<td>Stefanick, Marcia L.</td>
<td>208, 209</td>
<td></td>
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<td>017</td>
<td></td>
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<tr>
<td>Steinbrink, Kersten</td>
<td>607</td>
<td></td>
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<tr>
<td>Steinemann, J. M.</td>
<td>433</td>
<td></td>
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<tr>
<td>Steiner, Georg</td>
<td>p. 64</td>
<td></td>
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<tr>
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<td>260</td>
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<tr>
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<tr>
<td>Stewart, Arlene</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>Stewart, Paul M.</td>
<td>541</td>
<td></td>
</tr>
<tr>
<td>Stichwirth, Martin</td>
<td>304</td>
<td></td>
</tr>
<tr>
<td>Steggemann, Regan</td>
<td>259</td>
<td></td>
</tr>
<tr>
<td>Stine, M.</td>
<td>760</td>
<td></td>
</tr>
<tr>
<td>Stingl, Georg</td>
<td>063, 571, 726, 763</td>
<td></td>
</tr>
<tr>
<td>Stock, Jeffrey B.</td>
<td>057 (SH, F - Argyle Therapeutics; SH, F - Signum BioSciences)</td>
<td></td>
</tr>
<tr>
<td>Stock, Maxwell</td>
<td>057, 567 (SH, F - Argyle Therapeutics; SH, F - Signum BioSciences)</td>
<td></td>
</tr>
<tr>
<td>Stocker, Claire J.</td>
<td>201</td>
<td></td>
</tr>
<tr>
<td>Stockfleth, Egbert</td>
<td>103</td>
<td></td>
</tr>
<tr>
<td>Stoddard, A.</td>
<td>427</td>
<td></td>
</tr>
<tr>
<td>Stoddard, Greg</td>
<td>227, 232</td>
<td></td>
</tr>
<tr>
<td>Stohl, Lori L.</td>
<td>030</td>
<td></td>
</tr>
<tr>
<td>Stojadinovic, Olivera</td>
<td>101, 430</td>
<td></td>
</tr>
<tr>
<td>Stokes, Nicole</td>
<td>261</td>
<td></td>
</tr>
<tr>
<td>Stoll, Stefan W.</td>
<td>034, 157</td>
<td></td>
</tr>
<tr>
<td>Stolper, Gina</td>
<td>841</td>
<td></td>
</tr>
<tr>
<td>Stone, Gary</td>
<td>126</td>
<td></td>
</tr>
<tr>
<td>Stone, Hongran</td>
<td>326</td>
<td></td>
</tr>
<tr>
<td>Storm, Kathleen</td>
<td>743</td>
<td></td>
</tr>
<tr>
<td>Stottlemeyer, J.</td>
<td>699</td>
<td></td>
</tr>
<tr>
<td>Strachan, Lauren R.</td>
<td>824</td>
<td></td>
</tr>
</tbody>
</table>
Thibodeau, Alain 491 (E, I - Innovacos)
Thiboutot, Diane M. 646
Thiyagarajan, Saravanan 174
Thng, Steven T. 810
Thomas, Fridtjof 209
Thomas, Nancy E. 776
Thompson, Aiden 690
Thompson, Trellis B. 136
Thomson, James 811
Tian, John R. 021
Tian, Kegui 349
Tian, Yiheng 602, 640
Tiede, Stephan 431
Tigelaar, Robert E. 620
Tigges, Julia 305, 308, 679
Timares, Laura 149, 769
Timour, Martin 007
Tintle, Suzanne 475
Titeux, Matthias 374
Tkacheva, Olga 582, 741
Tlougan, Brook E. 241
Tober, Kathleen L. 120, 692
Tobin, Desmond J. 471
Tobis, Scott 522
Todorovic, Viktor 199, 200
Tohyama, Mikiko 181
Toida, Kazunori 791
Tokura, Yoshiki 453, 627
Tolar, Jakub 354, 535
Toledo-Bahena, Mirna 505 (G - Anacor Pharmaceuticals)
Tom, Wynnis 215, 537
Tomic-Canic, Marjana 101, 430
Tominaga, Mitsutoshi 178
Tominaga, Shin-ichi 007
Tonel, Giulia 596
Tonnesen, M. 838
Tonnen, Margarita G. 818, 837 (O - NeoMatrix Formulations)
Toosi, Siavash 720
Topalian, Suzanne 732
Torchia, Enrique 259, 466
Torigian, Drew A. 490
Toth, Kan 678
Torres, J. 256
Torrie, Leah 397
Torriglia, Alicia 630
Toth, Balasz 431
Toth, Sandi 599
Touloukian, Christopher 687
Towne, Jennifer 068 (E, SH - Amgen)
Townes, Tim M. 391
Toyoda, Hidekazu 508 (E - Nu Skin)
Toyozawa, Seiko 130
Tran, K. 371
Travers, Jeffrey B. 687, 688, 690
Travers, Jeffrey T. 391
Travers, Mary 394
Trivedi, Sohum 449
Tron, E. 410
Tron, Elodi 374
Truxel, A. B. 207
Truxel, Andrea B. 206, 211
Truchuelo, Mayte 677
Trullas, Carles 191, 311 (E - ISDIN)
Truong, Brian 253
Truzzi, Francesca 270, 306

Tsai, Donald E. 545
Tsai, Kathleen J. 545
Tsai, Kenneth Y. 136
Tsai, Ren-Yeu 439
Tsai, Tsen-Fang 381
Tsai, Tsung-Hua 452
Tsao, Hensin p. 19
Tschachler, Erwin 304, 355, 468, 630
Tsen, F. 828
Tseng, Lin-chiang 494
Tsukuda, Ryotsu 149
Tsuda, Hidekoshi 325, 751
Tsuda, Kenshiori 585
Tsujii, Gaku 328
Tsuruta, Daisuke 047, 380
Tu, Chia-Ling 180, 379
Tubo, Noah 581, 602
Tucat, G 239
Tuchinda, Papapit 652
Tschachler, Erwin 304, 355, 468, 630
Tsen, F. 828
Tseng, Lin-chiang 494
Tsukuda, Ryotsu 149
Tsuda, Hidekoshi 325, 751
Tsuda, Kenshiori 585
Tsujii, Gaku 328
Tsuruta, Daisuke 047, 380
Tu, Chia-Ling 180, 379
Tubo, Noah 581, 602
Tucat, G 239
Tuchinda, Papapit 652
Tuckey, Robert C. 698
Turczynski, Sandra 374
Turgeman, Dina 689
Turner, A. 371
Turner, Maria L. 638
Turner, Mathew J. 690
Tuttle, Marie S. 636, 792
Twitty, George 149
Tyagi, Sameer 050
Tyler, Douglas 737 (C, G - Adherex Technologies Inc.; C, G - Bayer; C, G - Genomic Health Inc.; C, G - Novartis; C, G - Schering-Plough)

U

Ubalde, Eduardo 245
Uchi, Hiroshi 328
Uchida, Noriko 265
Uchida, Yoshikazu 289, 290, 295, 350, 379, 801
Uchugonova, Aisada 783
Udey, Mark C. 010, 177
Ueda, Takahiro 126, 378
Uezato, Hiroshi 336
Uitto, Jouni 343, 415, 532, 544, 701, 826, 830
Underwood, Robert 184
Unewickell, Alex 129
Urrutia, Raul 146
Usui, Marcia 184
Utsumi, Daisuke 336

V

Vachon, Hortense 016
Vaculik, Christine 571, 580
Vahlquist, Anders 402
Vald, Mudit 672
Valdes, Jose 819 (G, I - Waterjel Technologies)
Valent, Lionel 666
Van Acker, Monica M. 237, 706
Van den Bergh, Françoise 046
Van der Driesche, Sander 734
Van der Hoeven, Harald 840
Westra, W.  760
Whalen, Faith  210
Whang, Kyu Uang  575
Wharton, David  031
White, Kellie J.  645
Whittaker, Sean  175
Whittington, Adam  798
Wickliffe, Jeffrey  697
Widelitz, Randy  474
Widlund, Hans  100
Wieder, Thomas  132
Wigger-Albert, Walter  345
Wikramanayake, Tongyu C.  435, 436, 443, 445
Wilbert, Dawn  169
Wilcox, George L.  663
Wilford, P.  299
Wilke, Charlene  383
Wilkinson, Michael  697
Wille, John  089
Willenborg, Anja  094
Williams, Jacqueline  536
Williams, Kirsten  017
Williams, Lisa L.  501
Williams, Mary  382
Willford, Philip  251, 527
Willmes, Cristoff  547
Wilson, Brian J.  733, 759
Wilson, Neil J.  402
Wingerath, Britta  275
Winn, John  394
Winston, Jason  002
Winterfield, L. S.  836
Winthrop, Kevin L.  517
Wipf, P.  699
Witarski, Wojciech  734
Wodz-Naskiewicz, Karolina  660
Woh, Christian  013
Wolf, Jedd  777
Wolf, B.  738
Wolf, Ronald  002
Wooff-Winiski, Barbara  458
Won, Chong Hyun  231, 330, 518
Wondrak, Georg T.  705, 780
Wong, Bob  227
Wong, Henry  083, 609
Wong, S.  108
Wong, Yc  709
Wood, Ashley A.  501
Wood, Brittany L.  803
Wood, Gary S.  112, 122, 137, 503, 758
Wood, Gavin  397
Wood, Steve M.  341, 508 (E - Nu Skin Enterprises)
Woodcock, Jamie  227, 232
Woodland, Andrew  397
Woodley, D.  039, 145, 194, 387, 828
Woodley, David  535
Woodward, David F.  469
Workman, Benjamin  552
Wright, Lisa N.  134
Wu, Anfan  515 (E, SH - Celgene)
Wu, Di  676
Wu, Hong  503
Wu, Jianqiang  122
Wu, June-Tai  439
Wu, Li-Chen  391
Wu, Wen H.  577
Wu, Wen Hao  574
Wu, Xiaoyang  261
Wyatt, Paul  397
Wyborski, Russell  364, 370
Wysocka, Joanna  373
Wysocka, Maria  520
X
Xi, Ning  048
Xia, Wei  197, 691
Xia, Yumin  003
Xiao, S.  595
Xiao, Tony Z.  146, 174
Xie, Xiaohui  362
Xie, Zhongjian  173
Xing, Luzhou  060, 533
Xing, Xiangying  026
Xing, Xianying  013, 018, 019, 027
Xiong, M.  217
Xu, Aie  746, 747
Xu, George  210
Xu, Haiying  732
Xu, Jialin  141
Xu, Jianmin  156
Xu, Shi-Mei  725
Xu, Yiru  644
Xu, Zhengbin  163
Y
Yadav, Amrita R.  522
Yaglmaie, Pouya  246
Yahav, Jonathan  809
Yalavartti, Srilakshmi  617, 633
Yamada, Taketo  269
Yamamoto, Mami  325, 751
Yamamoto, Masayuki  460
Yamamoto, Mayuko  011
Yamamoto, Yoshiaki  130
Yamanaka, Kei-i  585
Yamanashi, Haruyo  791
Yamasaki, Kenji  622, 623
Yamasaki, Osamu  055
Yamazaki, Kazuhiro  221
Yancey, Kim B.  653, p. 38
Yang, C.  426
Yang, Hee Seung  384
Yang, Hsin-ya  806
Yang, James C.  555
Yang, Jun-Mo  384, 385
Yang, Li  235
Yang, Ruiguang  048
Yang, Shi  106
Yang, Xiaoping  140, 457
Yang, Yul W.  373
Yaniv, Shimrat  504
Yano, Shoichiro  007
Yeung, Celestine  422
<table>
<thead>
<tr>
<th>Name</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yockey, Laura J.</td>
<td>817</td>
</tr>
<tr>
<td>Yokogawa, Maki</td>
<td>093, 099</td>
</tr>
<tr>
<td>Yokouchi, Mariko</td>
<td>277</td>
</tr>
<tr>
<td>Yoon, Cheonjae</td>
<td>264</td>
</tr>
<tr>
<td>Yoon, Jimi</td>
<td>730</td>
</tr>
<tr>
<td>Yoon, Juyong</td>
<td>485</td>
</tr>
<tr>
<td>Yoon, Na Young</td>
<td>028</td>
</tr>
<tr>
<td>Yoon, Tae Jin</td>
<td>267, 730, 731, 750</td>
</tr>
<tr>
<td>Yoshida, Kazue</td>
<td>277</td>
</tr>
<tr>
<td>Yoshida, Masaki</td>
<td>711</td>
</tr>
<tr>
<td>Yoshida, Takeshi</td>
<td>271, 637</td>
</tr>
<tr>
<td>Yoshikawa, Harumi</td>
<td>265</td>
</tr>
<tr>
<td>Yoshioka, Naoya</td>
<td>561</td>
</tr>
<tr>
<td>Yoshioka, Tohru</td>
<td>497</td>
</tr>
<tr>
<td>Yosipovitch, Gil</td>
<td>234, 299, 527, 546</td>
</tr>
<tr>
<td>You, Michael</td>
<td>180</td>
</tr>
<tr>
<td>Youm, Jong-Kyung</td>
<td>311, 320, 801</td>
</tr>
<tr>
<td>Youn, Sung Hwan</td>
<td>085</td>
</tr>
<tr>
<td>Young, Andrew B.</td>
<td>044</td>
</tr>
<tr>
<td>Young, Chen</td>
<td>552</td>
</tr>
<tr>
<td>Young, Gregory</td>
<td>120, 692</td>
</tr>
<tr>
<td>Young, Howard A.</td>
<td>036</td>
</tr>
<tr>
<td>Yousefi, Behnaz</td>
<td>482</td>
</tr>
<tr>
<td>Yu, Benjamin D.</td>
<td>448, 461, 614</td>
</tr>
<tr>
<td>Yu, Mei</td>
<td>105</td>
</tr>
<tr>
<td>Yu, YiDing</td>
<td>490</td>
</tr>
<tr>
<td>Yue, Lili</td>
<td>824</td>
</tr>
<tr>
<td>Yun, Joung Yun</td>
<td>051 (E - LegoChemBioScience Co.)</td>
</tr>
<tr>
<td>Yuspa, Stuart H.</td>
<td>098, 123, 134, 266, 785</td>
</tr>
<tr>
<td>Yusuf, Nabiha</td>
<td>141, 149, 654, 769</td>
</tr>
<tr>
<td>Zheng, Dan</td>
<td>383, 798</td>
</tr>
<tr>
<td>Zhao, Ge Alice</td>
<td>184</td>
</tr>
<tr>
<td>Zhao, Liang</td>
<td>140, 457</td>
</tr>
<tr>
<td>Zhao, Ming</td>
<td>783</td>
</tr>
<tr>
<td>Zhao, Qiping</td>
<td>183 (E - Halozyme Therapeutics Inc.)</td>
</tr>
<tr>
<td>Zhao, Xinyi</td>
<td>449</td>
</tr>
<tr>
<td>Zhao, Youwen</td>
<td>107</td>
</tr>
<tr>
<td>Zhu, Rui</td>
<td>021</td>
</tr>
<tr>
<td>Zaimi, Mohamed S.</td>
<td>201</td>
</tr>
<tr>
<td>Zhane, Mehyar</td>
<td>098</td>
</tr>
<tr>
<td>Zakhary, Lisa</td>
<td>225</td>
</tr>
<tr>
<td>Zalewski, Chris</td>
<td>126</td>
</tr>
<tr>
<td>Zalupski, M.</td>
<td>489</td>
</tr>
<tr>
<td>Zambroano, H.</td>
<td>408, 426</td>
</tr>
<tr>
<td>Zane, Lee T.</td>
<td>505 (E - Anacor Pharmaceuticals)</td>
</tr>
<tr>
<td>Zedeyko, Tara</td>
<td>550 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Zehnder, Ashley</td>
<td>396</td>
</tr>
<tr>
<td>Zeitany, Alex</td>
<td>527</td>
</tr>
<tr>
<td>Zeitouni, Nathalie C.</td>
<td>208, 209</td>
</tr>
<tr>
<td>Zembowicz, Artur</td>
<td>459</td>
</tr>
<tr>
<td>Zeng, Huiqing</td>
<td>444</td>
</tr>
<tr>
<td>Zhai, Yongjiao</td>
<td>298, 379</td>
</tr>
<tr>
<td>Zhan, Qian</td>
<td>768</td>
</tr>
<tr>
<td>Zhan, Quian</td>
<td>576</td>
</tr>
<tr>
<td>Zhang, Chuansen</td>
<td>783</td>
</tr>
<tr>
<td>Zhang, Chunlei</td>
<td>479 (G, I - Allos Therapeutics)</td>
</tr>
<tr>
<td>Zhang, Guofeng</td>
<td>266</td>
</tr>
<tr>
<td>Zhang, Hong</td>
<td>579</td>
</tr>
<tr>
<td>Zhang, Huayi</td>
<td>021</td>
</tr>
<tr>
<td>Zhang, Jennifer</td>
<td>829</td>
</tr>
<tr>
<td>Zhang, Jie</td>
<td>712 (G, E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Zhang, Jiying</td>
<td>388</td>
</tr>
<tr>
<td>Zhang, Lei</td>
<td>416, 466, 783</td>
</tr>
<tr>
<td>Zhang, Li</td>
<td>441, 658 (E - Johnson &amp; Johnson)</td>
</tr>
<tr>
<td>Zhang, Mingfeng</td>
<td>223, 733</td>
</tr>
<tr>
<td>Zhang, Qinghong</td>
<td>416</td>
</tr>
<tr>
<td>Zhang, Tian</td>
<td>787</td>
</tr>
<tr>
<td>Zhang, Xiang</td>
<td>479</td>
</tr>
<tr>
<td>Zhang, Yu</td>
<td>068 (E, SH - Amgen)</td>
</tr>
<tr>
<td>Zhang, Zhanyang</td>
<td>483</td>
</tr>
<tr>
<td>Zha, Qiping</td>
<td>183</td>
</tr>
<tr>
<td>Zha, Xinyi</td>
<td>449</td>
</tr>
<tr>
<td>Zhao, Youwen</td>
<td>107</td>
</tr>
<tr>
<td>Zhu, Rui</td>
<td>021</td>
</tr>
<tr>
<td>Zhu, Zhao</td>
<td>326</td>
</tr>
<tr>
<td>Zillikens, Detlef</td>
<td>053, 345, 686</td>
</tr>
<tr>
<td>Zimprich, Alexander</td>
<td>337</td>
</tr>
<tr>
<td>Zimprich, Friedrich</td>
<td>337</td>
</tr>
<tr>
<td>Zippin, Jonathan</td>
<td>081, 748</td>
</tr>
<tr>
<td>Zirato, J.</td>
<td>775</td>
</tr>
<tr>
<td>Zitron, Christopher C.</td>
<td>461</td>
</tr>
<tr>
<td>Zjawiony, J.</td>
<td>735</td>
</tr>
<tr>
<td>Zloty, David</td>
<td>105, 107</td>
</tr>
<tr>
<td>Zmijewski, M. A.</td>
<td>735</td>
</tr>
<tr>
<td>Zöller, Nadja</td>
<td>282</td>
</tr>
<tr>
<td>Zone, John J.</td>
<td>062, 070</td>
</tr>
<tr>
<td>Zouboulis, Christos C.</td>
<td>327, 329, 331</td>
</tr>
<tr>
<td>Zucchi, Helene</td>
<td>781</td>
</tr>
<tr>
<td>Zurawski, Gerard</td>
<td>584</td>
</tr>
<tr>
<td>Zurawski, Sandra M.</td>
<td>584</td>
</tr>
<tr>
<td>Zvulunov, A.</td>
<td>401</td>
</tr>
<tr>
<td>Zwadro-Klarwasser, Gabriele</td>
<td>681</td>
</tr>
</tbody>
</table>
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Presented for distinguished contributions to the skin and skin disease.

This award is intended to enlighten present and future workers about the importance of clinical investigation. It honors an individual who has made significant contributions to our understanding of clinical medicine.

Julius Stone Lectureship

This award is intended to promote the advancement of knowledge in immunology as it relates to the skin and skin disease.

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Presented for distinguished service to investigative cutaneous medicine.

1967 Marion Sulzberger
1968 Donald Pilsbury
1969 Harvey Blank
1970 Thomas Fitzpatrick
1971 Aaron Lerner
1972 William Montagna
1973 Rudolf Baer
1974 Hermann Pinkus
1975 Eugene Van Scott
1976 Albert Kligman
1977 Irvin Blank
1978 George Odland
1979 Clayton Wheeler, Jr.
1980 Clarence Livingood
1981 Isadore Bernstein
1982 J. Lamar Callaway
1983 Richard Stoughton
1984 A Gedeon Matoltsy
1985 Herman Beerman
1986 Otto Braun-Falco
1987 Walter Shelley
1988 John Strauss
1989 Walter Lobitz, Jr.
1990 Walter Lever
1991 Robert Goltz
1992 Irwin Freedberg
1993 Arthur Eisen
1994 Ruth Freinkel
1995 Howard Baden
1996 Irma Gigli
1997 Stephen Katz
1998 Klaus Wolff
1999 Lowell Goldsmith
2000 Richard Dobson
2001 Robert Briggaman
2002 Eugene Bauer
2003 Georg Stingle
2004 Stuart Yusp
2005 John Voorhees
2006 Thomas Lawley
2007 Barbara Gilchrest
2009 Luis Diaz
2010 Dennis Roop

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This award is given to enlightened present and future workers about the importance of clinical investigation. It honors an individual who has made significant contributions to our understanding of clinical medicine.

1993 Alvan Feinstein
1994 R. Michael Blaese
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2007 Thomas Pearson
2009 Mahlon DeLong
2010 Douglas Lowy

Julius Stone Lectureship

This award is intended to promote the advancement of knowledge in immunology as it relates to the skin and skin disease.

1999 Eli Gilboa
1999 Stephen Johnston
1999 Jeffrey Trent
2000 Nigel Bunnett
2000 Ronald Crystal
2000 Ralph Steinman
2001 Roland Martin
2002 Gerald Crabtree
2004 Adrian Hayday
2005 Polly Matzinger
2006 Alexander Rudensky
2007 Donald Y.M. Leung
2009 Jamey Marth
2010 Rafi Ahmed
William Montagna

Lectureship

This annual award is intended to honor and reward young active investigators. Primary emphasis is given to researchers in skin biology.

1975  Kenneth Halprin
1976  Frank Parker
1977  Arthur Eisen
1978  Irma Gigli
1979  Marvin Karasek
1980  Irwin Freedberg
1981  Stephen Katz
1982  John Parrish
1983  Douglas Lowy
1984  Gerald Lazarus
1985  Eugene Bauer
1986  Georg Stingl
1987  Jouni Uitto
1988  Stuart Yusp
1989  Tung-Tien Sun
1990  Karen Holbrook
1991  Luis Diaz
1992  Dennis Roop
1993  Ervin Epstein, Jr.
1994  John Stanley
1995  Elaine Fuchs
1996  Thomas Kupper
1997  Barbara Gilchrest
1998  Robert Modlin
1999  Fiona Watt
2000  Thomas Luger
2001  Peter Elias
2002  Kathleen Green
2003  Masayuki Amagai
2004  Akira Takashima
2005  Paul Khavari
2006  Richard Gallo
2007  George Cotsarelis
2008  Pierre Coulombe
2009  Angela Christiano
2010  W. H. Irwin McLean

Herman Beerman Lectureship

This lecture is given by a distinguished medical scholar, traditionally from fields other than dermatology.

1961  Rene Dubos
1962  Hans Selye
1963  Rupert Billingham
1964  Curt Stern
1965  Albert Szent-Gyorgyi
1966  Jerome Gross
1967  G.J.V. Nossal
1968  John Buetter-Januschi
1969  Henry Kunkel
1970  Norman Wessells
1971  Aiden Breathnach
1972  Frank Dixon
1973  H. Hugh Fudenberg
1974  Charles Cochrane
1975  David Katz
1976  Bert O’Malley
1977  Russell Ross
1978  Hilary Koprowski
1979  Michael Brown
1980  Phil Leder
1981  Pedro Cuatrecasas
1982  Frank Ruddle
1983  Lawrence Lichtenstein
1984  Robert Gallo
1985  Thomas Waldmann
1986  Torsten Wiesel
1987  Leroy Hood
1988  Joseph Goldstein
1989  Pierre Chambon
1990  Ronald Herberman
1991  K. Frank Austen
1992  Bert Vogelstein
1993  Charles Janeway, Jr.
1994  Solomon Snyder
1995  Eric Lander
1996  Irving Weissman
1997  Michael Karin
1998  Gunter Blobel
1999  Philippa Marrack
2000  Robert Langer
2001  William Haseltine
2002  Ronald DePinho
2003  Thomas Jessell
2004  Robert Weinberg
2005  Timothy Ley
2006  Amita Sehgal
2007  Stuart Schreiber
2009  Daniel Kastner
2010  Raymond Schinazi

Eugene M. Farber Psoriasis Research Award

2003  David Jones
2004  Thomas McCormick
2005  Edmund Lee
2006  Michael Allen
2007  Curdin Conrad
2008  Shigetoshi Sano
2009  Helen Young
2010  Amos Gilhar
2011  Rajan Nair
2012  Enno Christophers
2013  James T. Elder
2014  James Krueger

Albert M. Kligman / Phillip Frost Leadership Lecture & Award

2008  Jouni Uitto
2009  Stephen Katz
2010  John R. Stanley

SID/Galderma Acne Research Award

2002  Diane Thiboutot
2003  Jenny Kim
2004  Michaela Downie
2005  Andrzej Dlugosz
2006  Sewon Kang
2007  Philip Liu

SID/Galderma Rosacea Research Award

2009  Kenshi Yamasaki
Join us in Raleigh, North Carolina for the
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Celebration of the SID’s 75th Anniversary

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CE.R.I.E.S.
RESEARCH AWARD

The Epidermal and Sensory Research and Investigation Center, the CE.R.I.E.S., is the healthy skin research center of Chanel Research and Technology based in Paris, France. It aims to better understand the structure and function of healthy skin through clinical studies carried out at its laboratories and fundamental research projects performed in collaboration with leading researchers worldwide.

The CE.R.I.E.S. Research Award of 40,000 € is intended to honour a scientific researcher with a proven track record in fundamental or clinical research work, for a one year period, on the subject of:

PHYSIOLOGY OR BIOLOGY OF HEALTHY
SKIN AND/OR ITS REACTIONS
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The awardee will be selected by an international jury consisting of the members of the Scientific Advisory Board of the CE.R.I.E.S.

Previous CE.R.I.E.S. Research Award Winners:

2011  To be determined
2010  Howard Y. Chang, M.D., Ph.D., Stanford, USA
2009  Sabine Werner, Ph.D., Zurich, Switzerland
2008  Paul A. Khavari, M.D., Ph.D., Stanford, USA
2007  Richard L. Gallo, M.D., Ph.D., San Diego, USA
2006  Irwin Mc Lean, Ph.D., DSc, FRSE, Dundee, Scotland, UK
2005  Masayuki Amagai, M.D., Ph.D. Tokyo, Japan
2004  Thomas Schwarz, M.D. Kiel, Germany
2003  Angela M. Christiano, Ph.D., New York, USA
2002  Dennis R. Roop, Ph.D., Houston, USA
2001  Fiona M. Watt, D. Phil., London, UK
2000  Michael Karin, Ph.D., San Diego, USA
1999  Jonathan Rees, M.D., Edinburgh, UK
1998  Jean Krutmann, M.D., Düsseldorf, Germany
1997  Jens-Michael Schröder, Ph.D., Kiel, Germany
1996  Akira Takashima, M.D., Ph.D., Dallas, USA

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